

The role and management of community first responders

Findings from a national survey of NHS ambulance
services in England



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The Healthcare Commission

The Healthcare Commission exists to promote improvements in the quality of healthcare and public health in England and Wales.

In England, the Healthcare Commission is responsible for assessing and reporting on the performance of NHS and independent healthcare organisations, to ensure that they are providing a high standard of care. The Healthcare Commission also encourages providers to continually improve their services and the way they work.

In Wales, our role is more limited and relates mainly to working on national reviews that cover both England and Wales, as well as our annual report on the state of healthcare. In this role we work closely with the Healthcare Inspectorate Wales, which is responsible for the NHS and independent healthcare in Wales.

The Healthcare Commission aims to:

- safeguard patients and promote continuous improvement in healthcare services for patients, carers and the public
- promote the rights of everyone to have access to healthcare services and the opportunity to improve their health
- be independent, fair and open in our decision-making, and consultative about our processes

Summary

In January 2007, the Healthcare Commission began an investigation into Staffordshire Ambulance Service NHS Trust, following a number of concerns that were brought to our attention. One of these was about the management by the trust of community first responders (CFRs).

CFRs are volunteers who respond to emergency calls within their local community. They are generally lay people who have received basic medical training from their ambulance service. They respond, when available, to immediately life-threatening calls, usually in a rural area or one that is difficult for ambulances to reach within the current target time of eight minutes. They are not a substitute for professional paramedics and technicians, but they augment the ambulance service's response.

We decided to undertake a survey of CFRs in all NHS ambulance services in England. The information was used as comparative data for the investigation and to gain an understanding of the use and management of CFR schemes. This report reflects the findings of the survey and provides a snapshot of services provided by CFRs and practices that were in place during April 2007. The Healthcare Commission acknowledges that changes may have occurred since ambulance services completed the survey.

CFRs are commonplace. Only one ambulance service in England does not use them. There are large numbers of CFRs – 10,158 individuals across 1,331 CFR schemes – and some localities have more CFRs than emergency operational staff.

Despite these numbers, CFRs attend only a small proportion of emergency calls received by ambulance services. During 2006/2007 the ambulance service overall responded to five million 999 calls. CFRs attended just 1.8% of these.

All CFRs will be assigned to calls relating to suspected heart attack or chest pain. Beyond this, the type of calls that are assigned to CFRs vary considerably. Most ambulance services exclude calls relating to pregnancy, traffic accidents, mental health incidents and dangerous situations.

All CFRs receive training in basic life support and how to use an automated external defibrillator. Some ambulance services provide additional training and allow their CFRs to administer drugs or carry out more clinical interventions. When they are assigned to a call, most CFRs use their own vehicle with no audio or visual warning systems. However, one locality adapts a vehicle for each of its CFR schemes by adding sirens and blue lights, and it allows CFRs to use these when attending calls.

All ambulance services were positive about the benefits of CFR schemes, in particular their contribution to the national target of responding to 75% of all category A calls (immediately life-threatening) within eight minutes and improving outcomes for patients. CFRs are also seen as beneficial to their local community, by building links with the ambulance service and community initiatives and motivating people in the community to do something positive regarding their health.

The original concept of CFR schemes – located in rural areas, responding to emergency calls,

beginning cardiopulmonary resuscitation and using an automated external defibrillator while waiting the arrival of an ambulance crew – is still the predominant model. However, CFR schemes have expanded since their introduction. This expansion and development has progressed and been agreed by the ambulance service managing the scheme at the time. No national policy or guidance has been available to guide the development of schemes. This has resulted in a lack of consistency across England and particularly within some reconfigured ambulance services. The alignment of schemes, however, following the reconfiguration of services should result in a more consistent approach, although some variations may remain.

This survey shows that CFRs are used widely and are seen as an important addition to the care provided by ambulance services. The development of the service requires the NHS to ensure that it is properly managed, supported and audited by those responsible for the provision of emergency services in England.

In light of the variation in the role and management of CFRs, we recommend that the appropriate body should develop national guidance for ambulance services, to ensure that a more consistent approach is taken in the management, governance and development of this valuable service.

Key findings

Our key findings arising from the survey are as follows:

- A large number of individuals across England respond as a CFR on behalf of their local ambulance service.
- The overall number of calls responded to by CFRs is minimal.
- Management structures and methods to communicate with CFRs are in place.
- All ambulance services have a record of calls attended by a CFR.
- All ambulance services have an agreement that CFRs must sign before they are allowed to respond on behalf of the service. This includes a check by the Criminal Records Bureau.
- All CFRs are assigned to calls relating to heart attack and/or chest pain. The extent to which CFRs are assigned to other types of call varies across ambulance services.
- All CFRs are trained in basic life support and in the use of an automated external defibrillator. Training in other clinical interventions varies across services.
- Drugs that CFRs are trained to use and administer varies across services.
- Only one ambulance service allows all CFRs to respond to calls using blue lights and sirens.
- A range of in-house and nationally recognised training is offered to CFRs.
- Fundraising is carried out by all CFR schemes. However, the reliance on these funds varies across ambulance services.
- The NHS Litigation Authority provides personal liability insurance for CFRs when responding on behalf of the ambulance service.

Introduction

NHS ambulance services provide the public and patients with 24-hour emergency out of hospital care, and access to an extensive range of clinical services. They are the frontline of the NHS and are often the first contact with the NHS when emergency medical assistance is needed. They also respond to major incidents, and to urgent cases such as transfers to high-dependency hospitals.

Emergency 999 calls

The continued rise in the number of 999 calls has led ambulance services to become more efficient in assessing which patients need the most urgent care. Emergency calls are prioritised into three categories:

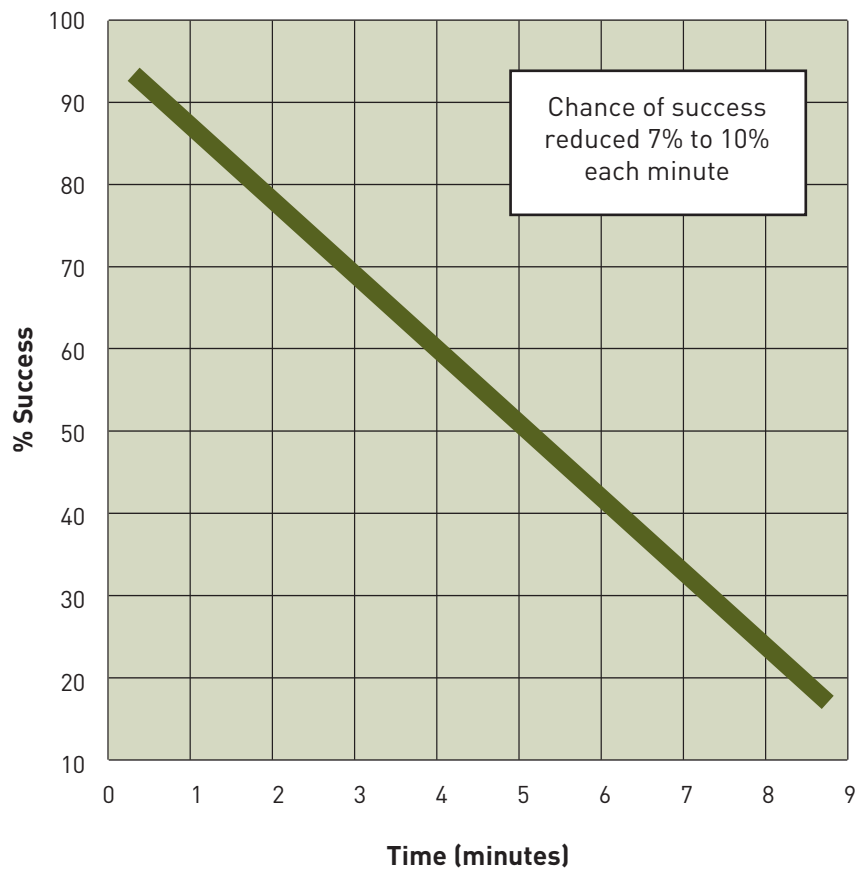
- **category A** calls are prioritised as immediately life-threatening
- **category B** calls are serious but not immediately life-threatening
- **category C** calls are neither serious nor life-threatening.

The emergency control room is where calls come in to an ambulance service and decisions are made about the most appropriate response. All life-threatening and serious calls result in the dispatch of a rapid-response vehicle (manned by one paramedic) or a traditional ambulance (with a crew of two paramedics and/or ambulance technicians). Other calls receive a range of responses such as an Emergency Care Practitioner dispatched to attend the call or referral to another service.

A paramedic is a medically trained and registered professional who responds to emergencies, provides emergency medical treatment to stabilise the patient and, where appropriate, transports them to hospital for further treatment. Ambulance technicians are similar to paramedics – they are medically trained and respond to emergencies. However, technicians' training is not as extensive as that of paramedics – they do not have such broad medical skills, they do not work autonomously and they are not registered professionals.

The Department of Health has set a target for ambulance services to respond to at least 75% of category A calls within eight minutes. Research has shown that an individual's chance of survival following a sudden cardiac arrest decreases by 7% to 10% for every minute following onset (see figure 1).

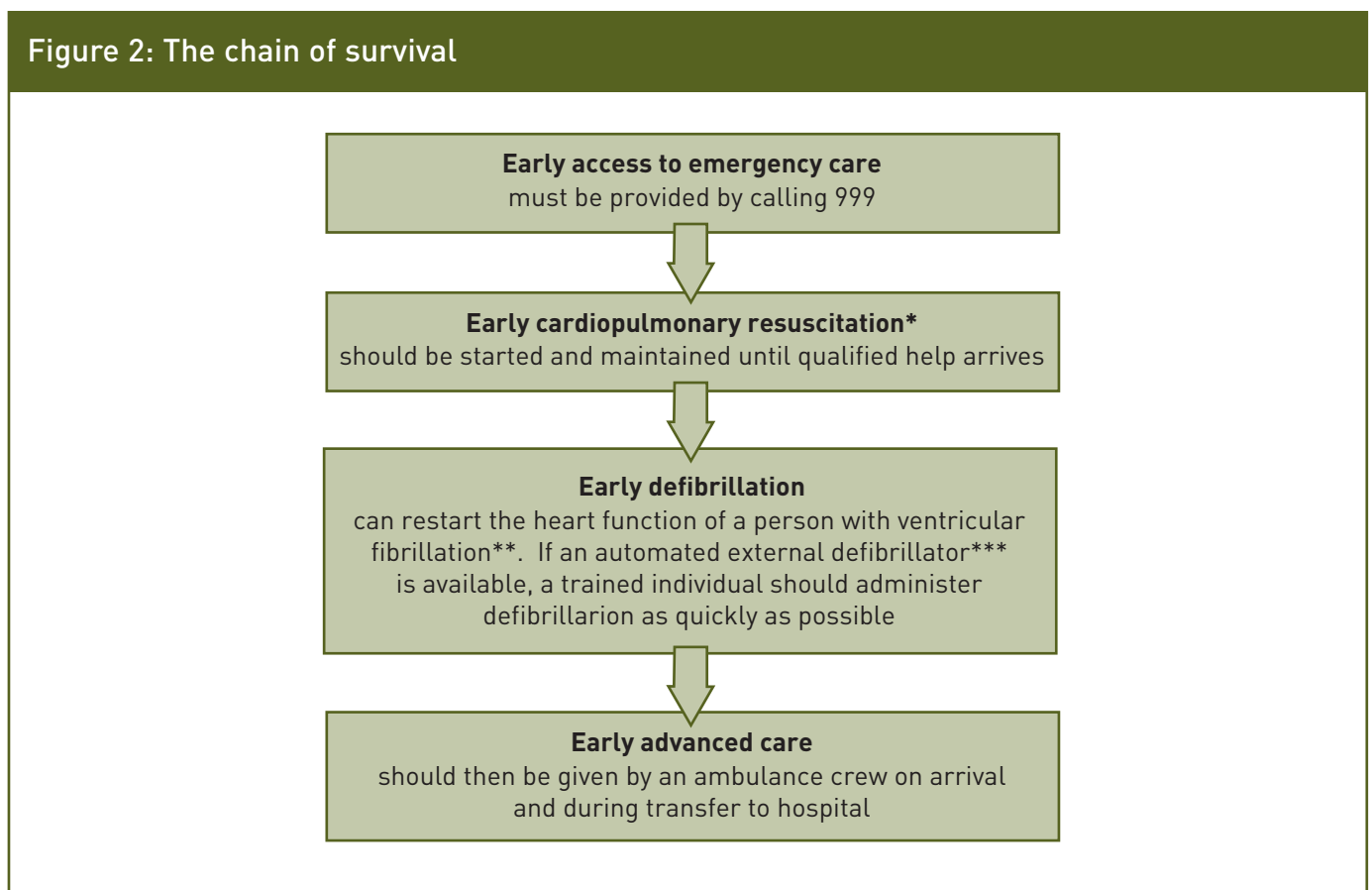
Figure 1: Chance of a successful outcome following the onset of cardiac arrest



Source: Stone Community First Responders¹

The chain of survival

Research carried out in 1990² has helped to develop the sequence of events that maximises the chances of surviving a cardiac arrest. This is referred to as the 'chain of survival'.



If this sequence is followed effectively and defibrillation occurs within the first few minutes, survival rates can be as high as 80% to 100%.³

* Cardiopulmonary resuscitation is a life-saving procedure that includes compression of the chest wall to stimulate blood flow, alternating with mouth-to-mouth breathing to provide oxygen.

** Ventricular fibrillation is a condition where ventricles in the heart contract in rapid and unsynchronised rhythms, so they cannot pump blood into the body.

*** An automated external defibrillator is a device that counteracts fibrillation of the heart muscle and restores normal heartbeat by applying a brief electric shock.

In July 1999, the Government announced⁴ the investment of £2 million into a project to save lives by treating cardiac arrest in the community. Of this, £1 million was to go towards purchasing automated external defibrillators; the remainder was to train people to use them. The project was called the Defibrillators in Public Places Initiative.

The establishment of community first responders

In 1999, the Government also encouraged ambulance services to consider using CFRs to provide emergency care, particularly in rural areas.⁵ The intention was for CFRs to help meet the new standard for category A calls and ensure heart attack patients received rapid treatment. It was suggested that CFR schemes should be considered in collaboration with local agencies, including community groups and the voluntary sector.

Following the Defibrillators in Public Places initiatives, the National Defibrillator Programme was launched in February 2000⁶. This concerned resuscitation and public access to defibrillation, with a phased approach to introducing defibrillators and providing the necessary training. Over the following three years, 681 automated external defibrillators were installed across 110 public sites in England.

In 2003, the New Opportunity Fund made the British Heart Foundation an award partner to support the next phase of the National Defibrillator Programme. This provided funding for 2,300 defibrillators, community defibrillation officers, and training to help meet the overall target of 3,000 automated external defibrillators in the community. This target was achieved in 2005⁷ and more than 6,000 defibrillators have now been placed in the community since the British Heart Foundation started donating them.⁸

Over time, the management of community defibrillation officers became the responsibility of the ambulance service, and they were gradually incorporated into the CFR schemes within each service. Ambulance services are still eligible to apply to the British Heart Foundation for funding for equipment such as automated external defibrillators.

What is a community first responder?

A CFR is a person that volunteers to provide emergency medical assistance within their local community. They are normally used in rural areas, or areas not quickly accessible by an ambulance. The intention is that the CFR arrives at an incident ahead of the ambulance crew and, where appropriate, begins to administer life support.

A CFR is generally a layperson, although some may be healthcare professionals. They are not employed by an ambulance service, but act on behalf of the service when responding to a call. As a minimum, they are trained in basic life support* and the use of an automated external defibrillator. A qualified paramedic or ambulance technician is always assigned to the call at the same time as the CFR, and will respond as quickly as possible, taking over the care and management of the patient on arrival and transporting them to hospital if required.

When CFRs were first introduced, their primary role was to start cardiopulmonary resuscitation and use an automated external defibrillator where necessary. However, their role has developed over time in most ambulance services.

* Basic life support covers all basic measures of resuscitation, including artificial ventilation techniques, cardiac massage, diagnoses, and techniques for positioning patients.

Why did we undertake this survey?

In January 2007, we began an investigation into Staffordshire Ambulance Service NHS Trust. This followed a number of concerns about the trust that were brought to our attention. One of these was about the trust's management of CFRs.

As we began to look at the role of CFRs, we realised that limited information existed. We therefore decided to undertake a national survey of the use of CFRs in all NHS ambulance services in England. We wanted to gain an understanding of the number of CFRs and CFR schemes, the range of care they provide, and their developing role. We also wanted to understand the management structures surrounding them and the governance framework within ambulance services that supports them.

In particular, we sought to gather information about:

- Lines of accountability and communication
- The range of training provided
- Clinical interventions used by CFRs when responding
- Drugs administered by CFRs
- What calls CFRs attend
- Policies and guidance in place to support CFR schemes, and whether these are followed in practice
- The financial aspects of the scheme, such as funding and insurance.

The survey provided comparative information for the investigation into Staffordshire Ambulance Service NHS Trust, which allowed us to look at the trust's practices regarding CFRs compared to those in other ambulance services. It also provided considerable information about the operation of CFR schemes that was not previously available.

We therefore decided to publish the results of the survey in this report, with the aim of supporting the NHS - and ambulance services in particular - to further develop the governance and management of CFR schemes.

Our approach

We developed the survey in consultation with key individuals from the ambulance sector and ran two pilot studies. In April 2007, we sent the final survey to the chief executives of the 13 NHS ambulance services in England. All were keen to respond, recognising the need for this information to be collected, and their answers have been incorporated into our findings.

At the time of the survey, ambulance services were still dealing with the reconfiguration of services, which reduced their numbers from over 30 to 13. The reduction in the number of ambulance services was the result of a recommendation in the Department of Health's publication *Taking Healthcare to the Patient*⁹ for fewer and larger ambulance services. Public consultation followed, and in December 2005, the agreed number of new ambulance services was published. The initial reconfiguration of ambulance services was completed by July 2006, and resulted in the establishment of 13 services.

Although the proposal consulted on was to create 12 new ambulance services (including the Isle of Wight PCT, which provides all services on the island), public concern during consultation resulted in an agreement that Staffordshire Ambulance Service NHS Trust would merge with the West Midlands Ambulance Service NHS Trust over a longer timescale.¹¹

This meant that 13 ambulance services existed at the time the survey was conducted (see figure 3) and for the purposes of this report, we will refer to them as the '13 ambulance services':

- East Midlands Ambulance Service NHS Trust
- East of England Ambulance Service NHS Trust
- Great Western Ambulance Service NHS Trust
- Isle of Wight Primary Care Trust
- London Ambulance Service NHS Trust
- North East Ambulance Service NHS Trust
- North West Ambulance Service NHS Trust
- South Central Ambulance Service NHS Trust
- South East Coast Ambulance Service NHS Trust
- South Western Ambulance Service NHS Trust
- Staffordshire Ambulance Service NHS Trust
- West Midlands Ambulance Service NHS Trust
- Yorkshire Ambulance Service NHS Trust.

As the survey was conducted so soon after the reconfiguration, transition to the new arrangements was not complete. There were different arrangements for CFRs in some of the newly reconfigured services, carrying over a variety of arrangements from the former services.

Where this occurred, and CFR schemes were operating sufficiently differently within ambulance services, we asked for separate surveys to be completed. Some services submitted up to four surveys and we received 27 different responses in total. For the purpose of this report, we refer to these as 'localities'.

While conducting the survey, we came to understand that ambulance services use the term 'community first responder scheme' to refer to a group of volunteers who receive training to be able to respond, on behalf of their local ambulance service, to medical emergencies within their community. The size of the group varies, depending on how many people volunteer and there are different CFR schemes within a locality. This is the definition of the term 'community first responder scheme' used throughout this report.

Figure 3: The 13 ambulance trusts in England at the time of the survey



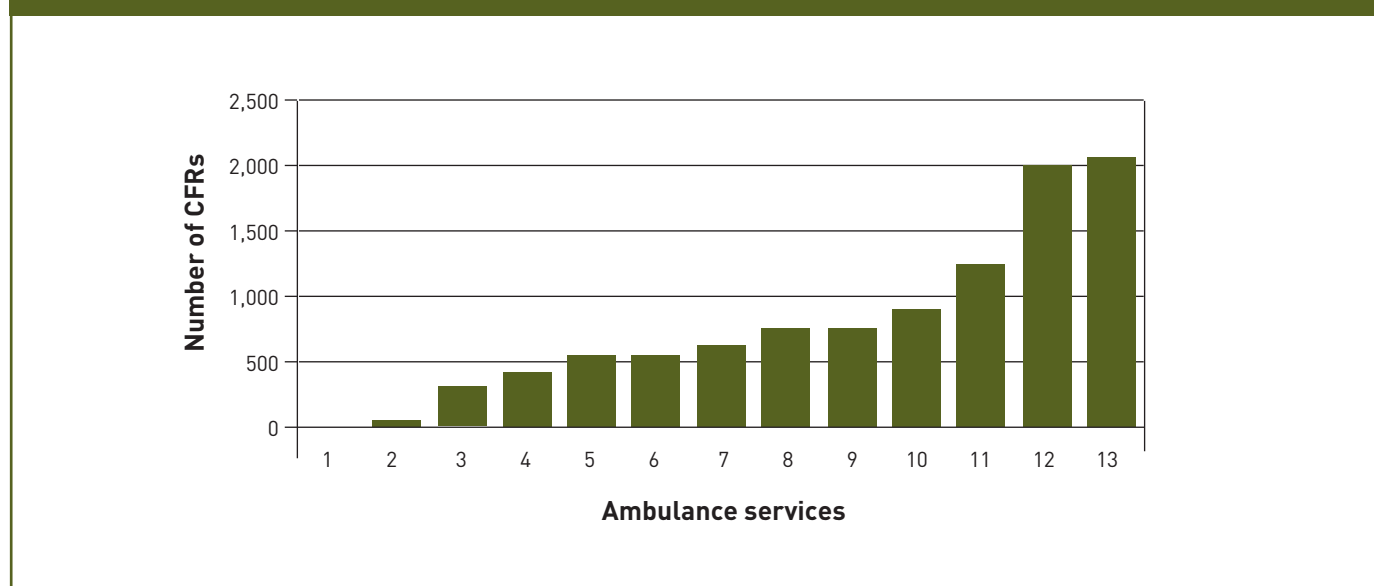
Source: Swindon PCT website

Profile of CFR schemes across England

Of the 13 ambulance services in England, 12 reported that they use CFRs in addition to paramedics and ambulance technicians when responding to some emergency calls. The one ambulance service that did not use CFRs said that they felt CFRs would not offer benefits to their patients because of the highly urban area they cover. This service has been excluded from the analysis in this report, and all figures and information will reflect responses from the 26 (out of 27) localities that use CFRs.

In total, there are 1,331 CFR schemes and 10,158 individual CFRs across England. The number of schemes in each service varies from four to 203, with the number of individual CFRs in each service ranging from 25 to 2,080. On average, this is equivalent to 847 CFRs in each ambulance service.

Figure 4: Number of CFRs for each ambulance service



The ratio of emergency operational staff employed by a service compared to the number of CFRs for the same service ranges from 0.3 to 1.2. Two ambulance services have more CFRs than employed staff. (These figures exclude one locality that was unable to provide data.)

The total number of CFRs across England is more than half the number of emergency operational staff (17,993) employed by the 12 services using CFRs. This means that there is a large number of individuals available to respond as CFRs on behalf of their local ambulance service. (These figures exclude one locality that was unable to provide data.)

Number of calls attended by CFRs

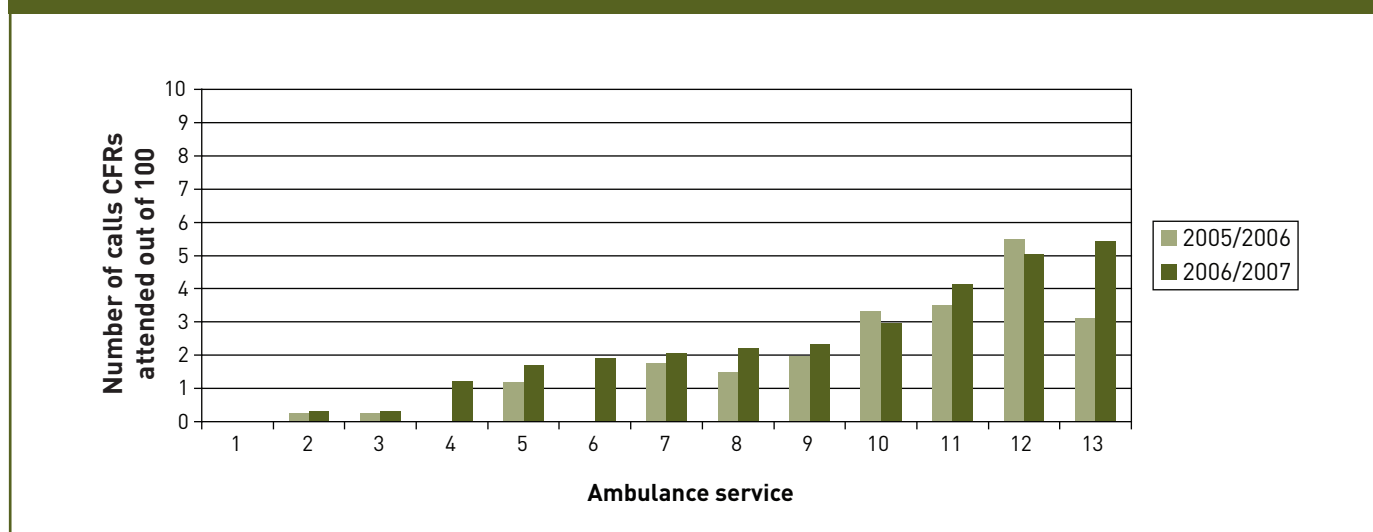
Although the number of CFRs across England appears high, the number of emergency calls they attend is low as a proportion of the total number of calls received and responded to by ambulance staff.

In 2005/2006, the 12 ambulance services received and responded to approximately 4.7 million 999 calls. Of these, CFRs were sent to 59,438, which is 1.2% of calls.

In 2006/2007, the number of 999 calls received and responded to rose by 0.3 million. The number attended by CFRs also increased to 92,928, which is 1.8% of calls.

The figures show considerable variance between ambulance services in the proportion of calls attended by CFRs. The lowest proportion of calls attended by a CFR was 0.3 in every 100 calls, this was the same figure for both years. During 2005/2006, the highest proportion was 5.5 calls in every 100, decreasing to 5.4 in every 100 calls the following year. Although these figures demonstrate a decrease, the overall trend is an increase in the use of CFRs by ambulance services that follows the national upward trend in 999 calls received.

Figure 5: Number of calls attended by a CFR as a proportion of total calls received by an ambulance service



Note: Excludes 2005/2006 figures for two localities that were unable to provide data.

Overall, this demonstrates that CFRs are used quite infrequently. A qualified paramedic or ambulance technician responds to most calls without the attendance of a CFR. CFRs tend to respond to calls in rural areas only, and ambulance services also impose various restrictions on the type of calls that CFRs can attend, see below for more detail. (These figures have been calculated using the published KA34 data for the number of calls resulting in a response arriving at the scene of the incident and self-reported figures for calls attended by a CFR.)

Management structure

To understand the management of CFR schemes, the survey included questions about lines of accountability. For 73% of localities, this lies with the director of operations. For the other localities, accountability is with the locality director, the director of human resources, the director of production, the director of governance or the director of corporate development.

All localities have a named contact that provides day-to-day management, advice and support to their CFR schemes. These have various job titles, but the majority have evolved from the community defibrillation officers who were first funded by the British Heart Foundation to promote the use of automated external defibrillators in public places.

The majority of schemes have a CFR coordinator, whose role can include arranging rotas, disseminating information and guidance, and managing the financial aspects of the scheme. However, in three localities CFR schemes are not managed within the community, but are linked with an established volunteer organisation such as St John Ambulance or LIVES, (the Lincolnshire Integrated Voluntary Emergency Service).

In these instances, individuals sign up to the volunteer organisation, which then acts as the coordinator for the scheme. Although these schemes are more established and larger than the community-based schemes, the individuals are still responding on behalf of, and are therefore accountable to, the ambulance service when attending a call as a CFR.

Policies and guidance

When asked about policies and guidance for CFRs, all localities confirmed that they have an agreement that CFRs must sign before they are allowed to respond in the capacity of a CFR. Five localities refer to this policy as a 'memorandum of understanding'. For one locality, this is known as a 'first responder charter'.

For the majority, this agreement is between the individual CFR and the ambulance service. For those localities that use volunteer organisations, such as St John Ambulance, the agreement is between the ambulance service and the volunteer organisation.

Generally, these agreements indicate understanding and acceptance of what is expected of the CFR and of the ambulance service, as well as an acknowledgement that the CFR will adhere to the terms of the ambulance service's policies and procedures. Checks by the Criminal Records

Bureau on CFRs also form part of the initial agreement, and all localities confirmed that they carry them out.

Communication

As CFR schemes work remotely, good communication between the scheme and the locality is particularly important. For the majority of localities (85%), it was specified that this tends to be via the day-to-day manager and the scheme coordinator, who have responsibility for cascading information to the other members.

Communication with CFRs is made through newsletters, emails, responder magazines and written correspondence. Some schemes have designated websites. Eighty-one per cent of localities hold regular meetings with their CFRs.

Availability of CFRs

All localities have developed methods to ensure that a CFR is assigned to a call if they are available. More than half (54%) of the localities monitor the day-to-day availability of CFRs through rotas submitted in advance, or via the CFRs booking on and off duty by contacting the control room directly.

An alternative method is to assume that the CFRs provide 24-hour cover and alert them to any calls within their community when dispatching an ambulance crew. If a CFR confirms their availability, they will be given details of the emergency, otherwise it will be recorded that a CFR is not available.

Documentation

All localities record on their dispatch systems the incidents attended by CFRs. Of the 12 localities specifically questioned, all confirmed that they also record attendance by a CFR on the patient report form. This form is a record of events, including personal and medical information about the patient, that goes with the patient to hospital and becomes part of the patient's hospital record. The ambulance crew retain a copy of the patient report form for the ambulance service's records.

In four localities, the first person on the scene initiates the completion of the patient report form. If this is the CFR, they pass the form on to the ambulance crew when they arrive. The ambulance crew then complete the remainder of the form and a copy accompanies the patient to hospital. For other localities, only the ambulance crews complete the patient report forms, recording the attendance of a CFR and the time of their arrival where appropriate.

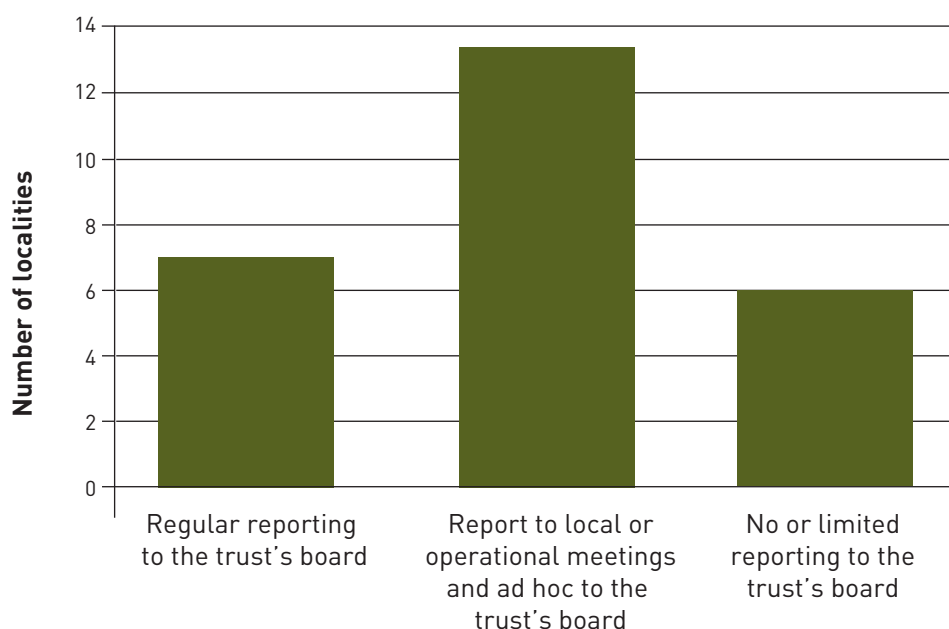
Where information on CFRs is reported within an ambulance service

Seventy-seven per cent of localities regularly report information on the use and performance of CFR schemes, while 23% either report infrequently or not at all.

Of the 77% that do regularly report information about CFRs, a third (seven) report specific information directly to trusts' board meetings. The others (13) report to daily or monthly operational meetings, and this is incorporated into activity reports discussed at trusts' board meetings. In these instances, information on CFRs will be reported when specific issues or changes need to be highlighted, or following requests for information at trusts' board meetings.

Of the remaining localities, three do not report specific information on CFRs to their trust's board and three provide information on an ad hoc basis or as part of the ambulance service's annual report.

Figure 6: Reporting of information about CFR schemes



What information is reported about CFRs

The information reported about CFRs includes data on their activity, their contribution to the category A response time target, or more detailed reporting such as the number of CFRs and schemes, recruitment and development.

Exceptions to this occurred in four localities – one provided a quarterly report including the types of calls attended by CFRs, treatments given and any issues that have arisen, while three report outcome data that includes the number of return of spontaneous circulations* that CFRs attend.

The most commonly reported information about CFRs is their contribution to the performance target of responding to 75% of all category A calls within eight minutes.

Care provided by CFRs

CFRs respond to emergency calls on behalf of their locality. Each locality decides the kind of training they offer to CFRs, the equipment and drugs used and clinical interventions they approve, and the type of calls to which they send CFRs.

Calls attended

When a call is received in an ambulance service control room, the call taker uses an IT system to help prioritise the medical need of the person requiring assistance. They ask a sequence of questions to identify the person's needs to ensure that an appropriate response is dispatched.

As CFRs are not qualified to the same level as paramedics or ambulance technicians, localities usually impose restrictions on the type of calls that CFRs are allowed to respond to.

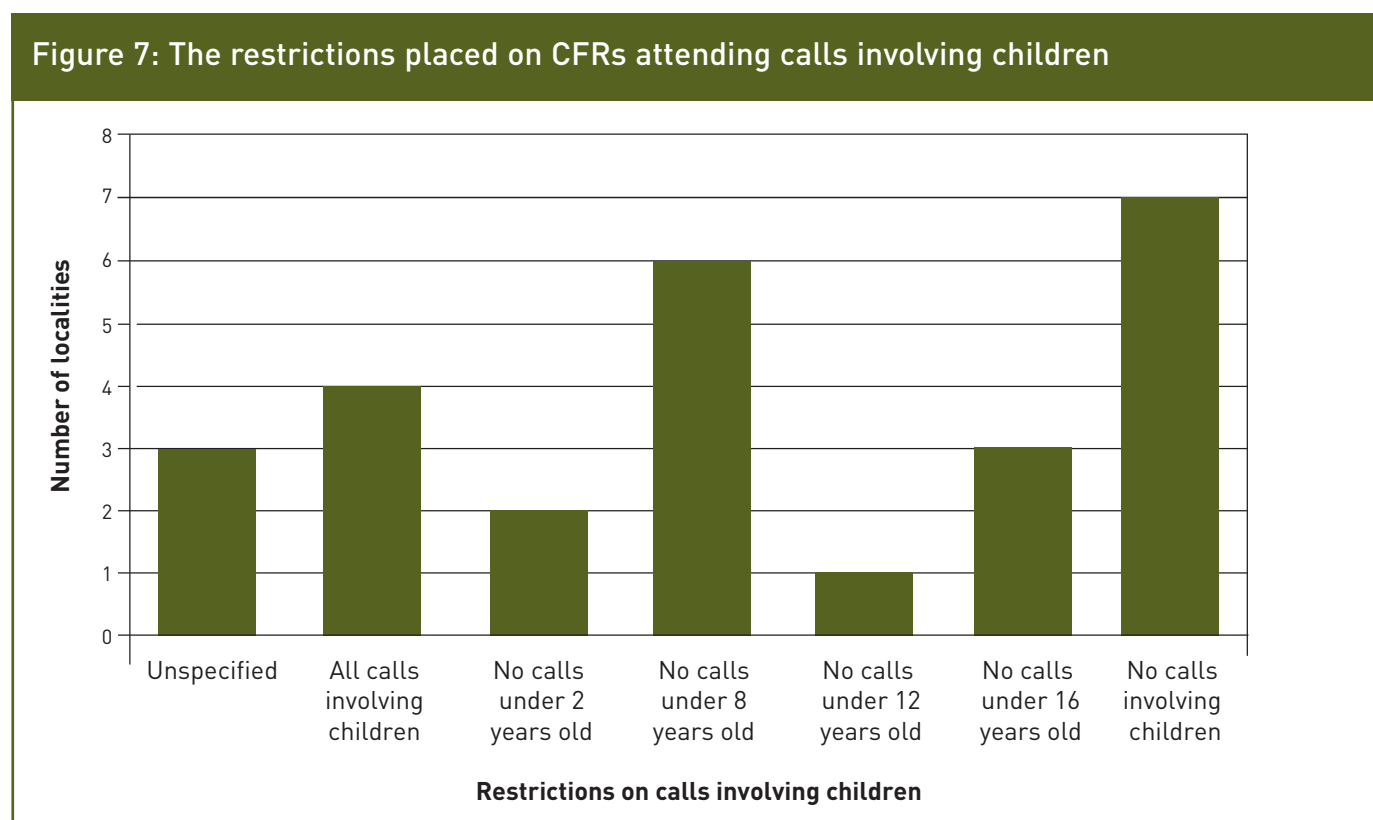
As might be expected, CFRs for all localities attend calls from patients with suspected heart attack and/or chest pain. For the majority of localities, CFRs tend not to be assigned to calls relating to: maternity; road traffic collisions; mental health incidents; potentially dangerous situations (involving drugs or alcohol); industrial incidents and hazardous areas.

* Return of spontaneous circulation is the return of blood flow and heartbeat to the patient.

For calls involving children, localities have applied varying restrictions:

- Seven do not send their CFRs to any calls involving children
- Four send CFRs irrespective of the age of the person requiring help
- Three did not give specific information.

Of the other 12 localities, attendance by a CFR is subject to a range of age restrictions, as shown in figure 7.



Training

A range of 'in-house' and nationally recognised courses are used to train CFRs. Across the localities, the amount of training offered to CFRs before they can respond to emergency calls ranges from 12 to 84 hours of combined theory and practical learning. Eleven of the localities are registered with the Institute of Healthcare Development and offer the nationally recognised qualification 'First Person On Scene'. The variations in training are as follows:

- Seven localities use First Person On Scene, Basic level
- Four use First Person On Scene, Basic level as mandatory, with an option to extend to the Intermediate level
- One uses the St John Ambulance neighbourhood community first responder course
- The other localities use in-house courses that, in some cases, are based on the First Person On Scene qualification (although they do not register with the Institute of Healthcare Development).

Update training

The Resuscitation Council provides guidance on the frequency of update training needed for using an automated external defibrillator. They suggest that skills should be updated at least once a year.¹²

All 26 localities confirmed that they provide mandatory update training for their CFRs. The frequency of this ranges from quarterly to annually, with over half the localities (17) offering six-monthly courses. One locality varies the frequency of update training between six and 12 months, depending on how the scheme has been utilised and how likely it is that skills levels have declined.

In addition to the mandatory update training, a third of the localities offer optional update training on a monthly basis, while a third of the localities organise additional training sessions when new equipment or protocols are introduced.

In line with the recommendations of the Resuscitation Council, update training on automated external defibrillation is mandatory for CFRs. Basic life support is also included in the mandatory updates, and one locality specified additional topics such as patient confidentiality and moving and handling.

Clinical interventions

CFRs for all localities can provide basic life support and use an automated external defibrillator. In addition, all localities offer training in oxygen administration and airway management techniques, such as the use of a bag and valve mask or hand-held suction equipment. However, two localities specifically noted that their CFRs can opt out of this training and respond using only basic life support and automated external defibrillator.

The majority of localities also provide some form of training in the control of bleeding, dressing wounds and the use of basic first aid equipment.

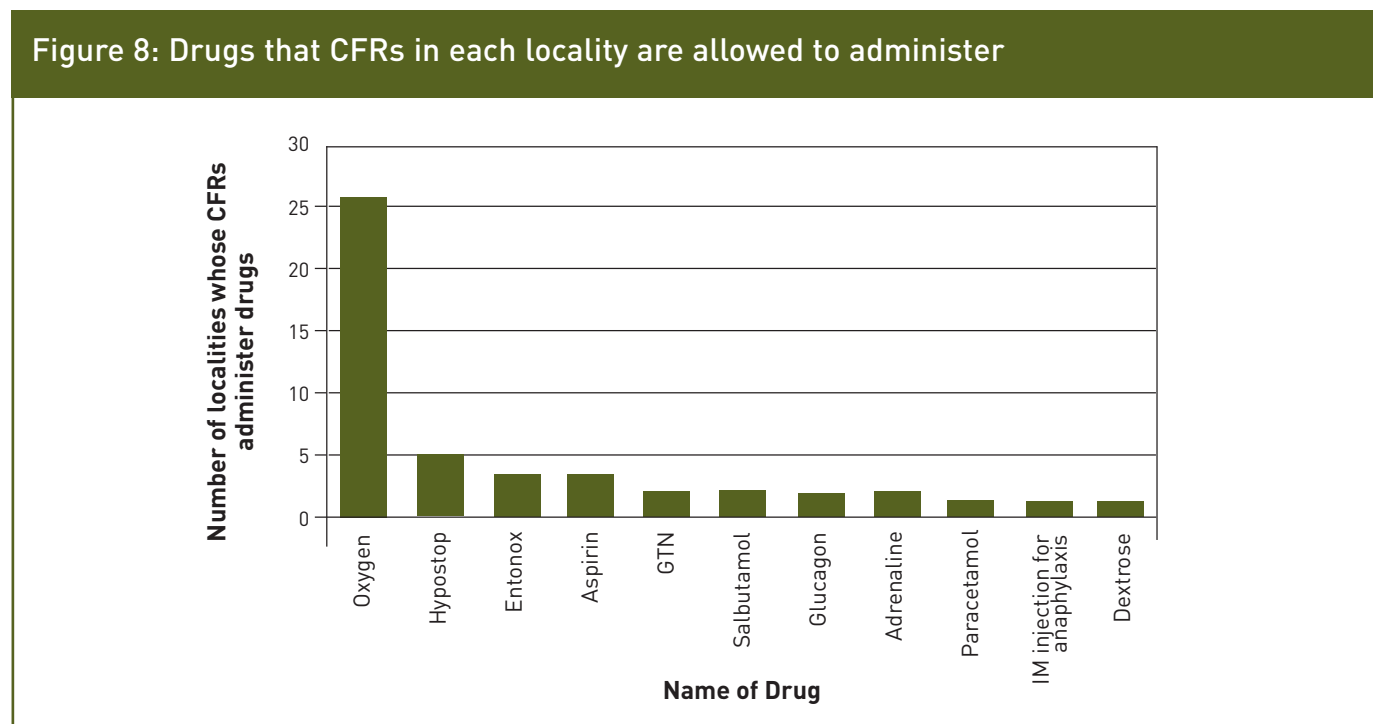
Nine localities approve a wider range of clinical interventions for their CFRs:

- Three allow CFRs to measure blood pressure
- Three allow CFRs to measure the oxygen saturation in the blood
- One allows CFRs to measure blood pressure and oxygen saturation in the blood
- Two allow CFRs to measure blood pressure, oxygen saturation in the blood and blood glucose levels

Of the two localities with the widest range of clinical interventions, one has a further list of approved CFR clinical interventions. This includes the use of peak flow meters and administration of medication via a nebuliser*.

Drugs

For the majority (19) of localities, oxygen is the only drug that CFRs are trained and approved to administer. Of the seven localities that have approved additional medications, further variation occurs (see figure 8).



Note: For a glossary of drugs, see Appendix 3

* A nebuliser is a device to administer medication as a liquid mist, commonly used for people experiencing an asthma attack.

The two localities that have approved their CFRs to provide the greatest number of clinical interventions have also authorised their CFRs to administer the widest range of drugs. Of these, one locality has approved an extensive list of drugs for use by CFRs, including dextrose and an intramuscular injection for anaphylaxis.*

Overall, when considering the aspects of care and treatment, one locality repeatedly demonstrates a wider range of calls that CFRs attend, clinical interventions they can use, drugs they are allowed to administer and equipment they are trained to use. This locality also provides the most training, amounting to 84 hours in total (practical and theory).

Box 1: an illustration of the variations found across CFR schemes

One ambulance trust provides a good example of the variations found across CFR schemes in England.

The trust consists of three localities (A, B and C) as a result of the ambulance service reconfiguration. When a 999 call is received, a code is allocated to it that best describes the medical condition of the person requiring assistance. This is achieved through asking the caller a sequence of questions. There are 205 different codes and each locality sends their CFRs to a defined range of codes:

- Locality A responds to chest pain and/or heart attacks only – amounting to 28 codes
- Locality B responds to a range of conditions in addition to chest pain and/or heart attacks, such as convulsions or strokes – this amounts to 63 codes
- Locality C responds to the widest range of calls – amounting to 115 codes, including conditions such as diabetic problems, allergies and abdominal pain (see Appendix 1).

This variation continues in the amount of training provided by the three localities, and the clinical interventions approved when responding to calls.

CFRs in locality A receive 24 hours of in-house training and can administer oxygen, hypostop and aspirin. In localities B and C, CFRs receive 16 hours to become qualified to First Person On Scene, Basic level. They can administer oxygen and hypostop only, but they attend a larger range of calls.

* Anaphylaxis is an immediate and severe allergic reaction to a substance, for example food or drugs.

Training for drivers, blue lights and sirens

The survey asked whether CFRs were offered advanced driver training. All localities said that they do not provide this.

One locality reported that it allows all its CFRs to use blue lights and sirens when responding. For this locality, each scheme has a designated vehicle that is adapted by the ambulance service to include blue lights and a siren. Guidance is provided, but CFRs are expected to comply with the Road Traffic Act and not exceed speed limits or pass red lights.*

Three localities allow specific individual CFRs to respond using blue lights and sirens. These people will have completed advanced driver training through their full-time occupation (such as GPs or those in the armed forces) and are required, by the ambulance service, to keep their skills up-to-date.

All but three localities check CFR driving licences. Ten said that they do this annually. Of the three exceptions, one uses a volunteer organisation for their CFRs and responsibility lies with the volunteer organisation to check driving credentials. The other localities that do not check licences regularly believe that if CFRs use their own transport when responding, it is their responsibility to ensure that they are acting legally, for example ensuring that they abide by all road traffic laws and regulations.

Support

All localities ensure that debriefing is available for their CFRs – this involves the offer of counselling following attendance at a call. Most localities use a variation of their own ambulance staff procedures, such as peer support, welfare checks and 24-hour incident support officers. Some routinely arrange a debrief session (counselling) for all CFRs that attend heart attack or chest pain calls. However, this is not replicated across all localities. Some expect CFRs to access the service themselves if required.

Monitoring CFR schemes

Audit is a useful tool to identify lessons to be learnt and ensure that improvements are made where necessary. The localities were asked whether audits had been carried out on their CFR schemes. Nine localities had not carried out any specific work, while 17 had carried out some audit or evaluation.

* This issue has been followed up and managed by the Healthcare Commission.

One locality reviewed its utilisation of CFRs. If the audit established a low usage for any CFR scheme, further work would be carried out to identify the need for any additional training to prevent deterioration of the skills of CFRs. Three localities used data on return of spontaneous circulation outcomes, while three localities used information from patient report forms.

The majority of localities assess or monitor response times, that is the time taken from the call being received to when the CFR arrives at the location of the incident.

Effectiveness of the CFR schemes

Some localities have used other methods to assess the effectiveness of their CFR schemes. Several evaluated the availability of CFRs compared with the numbers of calls and where the calls were from, in order to assess the feasibility of schemes or identify the need for additional resources.

One locality has worked with the NHS Litigation Authority to review the training and corporate induction provided to CFRs and the policies and procedures in place for them as part of a risk assessment. Three localities have reviewed their recruitment processes, as well as management and training provided to their CFRs, to ensure that what is now provided is unified across all localities.

Three localities carried out a survey of patient satisfaction. These received a positive response and the intention is to repeat them annually.

Volunteer organisations that provide CFRs for some localities have also carried out surveys of patient satisfaction on an annual basis.

Risk

In any emergency, unexpected incidents or accidents can happen. Potentially a CFR may observe or be involved in something that results in harm either to a patient, another CFR or a member of the ambulance service staff.

When asked about risk and the reporting of near misses and serious untoward incidents, all localities confirmed that they have a process in place for CFRs to report these. Fifteen of the localities verified that they use the same process as that used by ambulance staff. This involves the completion of an incident form returned to a 'designated person' with the relevant details for investigation. Four localities ensure that the day-to-day CFR manager is contacted to provide support to the CFR and assist them in completing the incident form.

The three localities that use volunteer organisations use a joint approach, involving a representative from the voluntary organisation and ambulance staff investigating the incident together.

Between January and December 2006, CFRs reported the following:

- 21 localities reported no serious untoward incidents or near misses
- Two localities reported one serious untoward incident each
- One locality reported three near misses
- One locality reported 14 incidents including near misses and serious untoward incidents
- One locality did not have this information available.

One locality has a significantly higher record of near misses and serious untoward incidents reported by CFRs. These figures do not necessarily reflect a lower standard of care; they may reflect an effective mechanism for reporting incidents.

Complaints

In the event of a complaint involving a CFR being reported, 25 of the localities have a complaints process in place. The majority follow the same process as they would when managing a complaint about a member of staff. Two localities specified a process that involves the CFR manager or community defibrillation officer investigating the complaint initially, and escalating it if necessary.

For the three localities that involve volunteer organisations, any complaints are investigated jointly between the ambulance service and a representative from the volunteer organisation. Only seven of the localities received complaints during 2006 that involved CFRs.

Table 1: Complaints received in 2006 involving a CFR

Number of localities	Number of complaints reported involving CFRs
15	0
3	1
2	2
2	3
4	Data unavailable

Funding

The majority of CFR schemes are funded by a combination of ambulance service funding and donations from the community. The locality mostly covers the cost of consumables such as oxygen and communication equipment, including pagers and mobile phones, as well as training. For two localities, training is provided by a charity or the voluntary organisation that the scheme is linked with, although the schemes' consumables are funded by the locality. CFRs in two localities can claim mileage if they use their own vehicle when responding to a call.

The exception is one locality that insists on their CFR schemes raising a specified amount of funding annually to support their scheme – this includes the purchase of a vehicle. No other schemes expect a vehicle to be purchased, although six localities stated that some of their schemes have a sponsored vehicle. The majority of CFRs use their own vehicles to respond to calls.

All schemes carry out some form of fundraising. The money raised is generally used to buy equipment such as automated external defibrillators or high-visibility jackets. One locality provides a starter kit that includes the necessary equipment to start a CFR scheme. However, once the scheme is established, it is expected to take over any cost of replacements.

Funding is provided from a variety of other sources. These include parish councils, PCTs and cardiac networks. The majority of localities encourage their CFR schemes to apply for funding from the National Defibrillation Programme to sponsor automated external defibrillators. For the schemes that are supported by volunteer organisations, funding is provided in conjunction with these organisations.

Insurance

All localities stated that they provide personal liability insurance for their CFRs via their NHS Litigation Authority clinical negligence cover, since CFRs are deemed to be 'agents of the ambulance service' when responding. For some localities, the same cover offered to ambulance staff is offered to a CFR if they suffer an injury while responding on behalf of the service. The locality would expect the CFR to put in a claim for loss of earnings. Two localities recommend that CFRs take out additional personal injury insurance.

It has been acknowledged that the NHS indemnity and NHSLA's clinical negligence scheme for trusts covers first responders for ambulance services when deemed to be agents of the ambulance service. However, there are implications for the ambulance service:

- Ambulance service employees are covered during training for clinical errors
- Training must be documented and signed by both trainers and trainees
- Minimum three-month refresher courses must be taken

- A handbook/information pack must be allocated to each first responder and signed out to them.

In addition to this, robust policies need to be in place in relation to:

- The selection of CFRs
- The number of CFRs and areas in which they respond
- Allocation of equipment
- Storage of equipment
- Maintenance and record-keeping of equipment
- The method of communication to liaise with ambulance personnel
- The volunteer agreement outlining duties, response times and situations when CFRs are deemed to be an agent of the ambulance service.

As CFRs mostly use their own vehicle or a scheme-funded vehicle, they are expected to arrange their own vehicle insurance. CFRs have a responsibility to notify the vehicle insurers that they intend to use the vehicle as a response vehicle. Some localities provide a template letter to send to the insurance company. Over half of the localities check CFRs' vehicle insurance annually. The other localities do not, as it is regarded as the CFR's responsibility.

Benefits of community first responder schemes

All ambulance services were asked about the benefits of a CFR scheme. The response to this was very positive. The main benefits were the contribution to the national target for category A calls and improvements in outcomes for patients.

Other benefits that have been highlighted include:

- The community being motivated to do something positive regarding their health and contribute to the NHS
- The decreased anxiety of patients and carers when waiting for an ambulance, especially where there may be relatively long waits
- Improved community relations
- Links with other community initiatives, such as PCTs, coronary heart disease networks, and patient and public involvement forums
- The enhanced standing of ambulance service in the area.

Key findings

The key findings of the survey, which was carried out to gain an understanding of community first responders and their management across England, are as follows:

- A large number of individuals across England respond as a CFR on behalf of their local ambulance service.
- The overall number of calls responded to by CFRs is minimal.
- Management structures and methods to communicate with CFRs are in place.
- All ambulance services have a record of calls attended by a CFR.
- All ambulance services have an agreement that CFRs must sign before they are allowed to respond on behalf of the service. This includes a Criminal Records Bureau check.
- All CFRs are assigned to calls relating to heart attack and/or chest pain. The extent to which CFRs are assigned to other types of call varies across ambulance services.
- All CFRs are trained in basic life support and in the use of an automated external defibrillator. Training in other clinical interventions varies across services.
- Drugs that CFRs are trained to use and administer varies across services.
- Only one ambulance service allows all CFRs to respond to calls using blue lights and sirens.
- A range of in-house and nationally recognised training is offered to CFRs.
- Fundraising is carried out by all CFR schemes. However, the reliance on these funds varies across ambulance services.
- The NHS Litigation Authority provides personal liability insurance for CFRs when responding on behalf of the ambulance service.

Recommendations

This survey has shown that CFRs are used widely, that they are seen as being beneficial to outcomes for patients, and that over time ambulance services have developed the CFR model to different degrees.

The development of this service requires the NHS to ensure that it is properly managed, supported and audited by those responsible for the provision of emergency services in England.

In light of the variation in the role and management of CFRs across England, we recommend that the appropriate body should develop national guidance for ambulance services, to ensure that a more consistent approach is taken in the management, governance and development of this valuable service.

Appendix 1: Variations in calls attended by CFRs in Box 1 (see page 22)

Description of call out	A	B	C
Abdominal pain			✓
Allergy/hives/medical reaction/stings			✓
Animal bites/attacks			
Assault/rape			
Back pain (non-traumatic)			
Breathing problem		✓	✓
Burns/explosion			
Carbon monoxide/hazardous chemicals			
Inhalation			✓
Obvious death	✓		
Cardiac/respiratory arrest	✓	✓	✓
Hanging/strangulation/suffocation/underwater/expected death	✓		
Chest pain	✓	✓	✓
Choking		✓	✓
Confirm death		✓	✓
Convulsions/fitting		✓	✓
Diabetic problems			✓
Drowning (near)/diving accident			✓
Electrocution		✓	✓

Description of call out	A	B	C
Eye problems/injuries			
Falls/back injuries (traumatic)			✓
Headache			✓
Heart problems		✓	✓
Heat/cold exposure			
Haemorrhage/lacerations			
Industrial/machinery accidents			
Overdose/ingestion/poisoning			
Pregnancy/childbirth/miscarriage			
Psychiatric/suicide attempt			
Road traffic accident			
Sick person (specific diagnosis)			
Stab/gunshot wound			
Stroke/cerebrovascular accident		✓	✓
Traumatic injuries (specific)			
Unconsciousness/fainting	✓	✓	✓
Unknown problem (third party)		✓	✓

Appendix 2: Community first responder survey

We appreciate you may have slight differences in each area following the recent merger, if this is the case could you complete a questionnaire for each area that is different.

Definition of a community first responder

Community first responders are self-funding volunteers that provide a first response service and are organised into geographical schemes in order to serve communities. They are managed by ambulance services and operate as agents of the service while acting on its behalf. An example of community first responders would be a group of volunteers in a particular town or village who respond to episodes when activated.

1. Do you have community first responders?

Yes/No

- If you answered **no**, please explain why the service has decided against using community first responders.
- If you answered **yes**, please complete the rest of the questionnaire.

General

2. How many community first responder schemes do you have?

3. How many individual community first responders do you have in total?

4. How many whole time equivalent staff do you have in your emergency and urgent workforce?

5. How did the service determine the number of community first responder schemes required and the location of the schemes?

6. Please complete the following table with the number of 999 calls received by the service and how many of the calls were attended by a community first responder in total for each month listed?

Year	Number of 999 calls received in total by the service	Number of calls attended in total by community first responders
April 2005 - March 2006		
April 2006 - March 2007		

Accountability, management and reporting

7. What are the title(s) of the individual(s) accountable at board level, with responsibility for the community first responder schemes and with responsibility for the daily management of the community first responder schemes?
8. Do you monitor the day-to-day availability of community first responders?
9. If you answered **yes** to the above question, please answer the following. What is the process for monitoring day-to-day availability of community first responders?
10. How do you communicate new guidance or news updates to the community first responders?
11. How do you record the activation and on-scene times for CFRs?
12. What community first responder activity is reported to the service board and how frequently?

Call outs

13. Please list what category of calls community first responders attend, including the sub-division of the categorisation (e.g. Category A/breathing difficulties etc.)
14. How is the decision made about what call a community first responder can attend? (e.g. do you have criteria specifying what a community first responder can attend?)
15. Do community first responders use blue lights or any other audio and/or visual warnings when responding to calls?
16. If **yes** to the above question, please answer the following. What guidance or risk assessments do you use with regards to the use of blue lights by community first responders?
17. Do community first responders carry out any clinical interventions in addition to those associated with the application of basic life support and the use of an automated external defibrillator?
18. Do community first responders administer any drugs?
19. If you answered **yes** to the above question please provide a list of drugs that community first responders are trained to administer.

20. Please list all other clinical equipment your community first responders are trained to use, and have access to when dispatched? (e.g. automatic external defibrillator, suction.)

Training and performance management

In order to be a member of a community first responder scheme initially:

21. How many hours theoretical training do your community first responders receive (i.e. classroom-based theory)?
22. How many hours practical training do your community first responders receive (i.e. planned, practical sessions)?
23. How many hours (if any) do your community first responders spend shadowing ambulance staff and in which settings?
24. What topics are covered in the training for community first responders?
25. Do you have a mentoring scheme for your community first responders?
26. If you answered **yes** to the above question, please answer the following. Who provides the mentoring?
27. Do you provide advanced driving skills training for community first responders?
28. Do you check your community first responders' driving licences? (e.g. if they have a licence, convictions)
29. Do you provide any update training to community first responders after they have completed their initial training and qualified as a community first responder?
30. If you answered **yes** to the above question, please answer the following. What update training do you provide to community first responders and how frequently? (e.g. infection control, refresher training)
31. Is attendance monitored for all training provided to community first responders?
32. If you answered **yes** to the above question, please answer the following. What is the process for monitoring attendance of community first responders at training sessions?
33. Do you provide feedback to community first responders on their performance and/or provide debriefing sessions?

34. If you answered **yes** to the above question, please answer the following. How do you provide feedback to community first responders on their performance?
35. Are your community first responders trained to a nationally recognised qualification?
36. If you answered **yes** to the above question, please answer the following. What qualification are your community first responders trained to?

Policy and guidance

37. Do you have a volunteer agreement?
38. Do you have an agreement that community first responders have to sign up to with the service prior to initiating a community first responder scheme? (Please provide details)
39. Do you have a policy covering the work of community first responders?
40. Do you have a policy for the recruitment and selection of community first responders?
41. Is there a requirement to be CRB checked?
42. Do you have a code of conduct for community first responders?
43. Do you have a community first responder confidentiality agreement and training?
44. Do you have a process in place to manage grievance and disciplinary procedures for community first responders?
45. Do you have guidance to manage complaints against a community first responder?
46. If you answered **yes** to the above question, please answer the following. What is the process for managing complaints against community first responders and how many times has it been used between January and December 2006?

Audit

47. Have you carried out any audit in to your community first responder schemes between January and December 2006?
48. If you answered **yes** to the above question, please answer the following. Provide a brief summary of the topics that were considered, results and any actions arising.

Risk

49. Do community first responders report serious untoward incidents or near misses?
50. If you answered **yes** to the above question, please answer the following. What is the process for community first responders to report serious untoward incidents or near misses?
51. Please provide the total number of serious untoward incidents reported between January and December 2006 and how many of these were reported by a community first responder.

Funding and insurance

52. Please provide brief details of how your community first responder schemes are funded. (Include funding of vehicles, equipment, medication, training)
53. What insurance arrangements are in place for community first responders? (e.g. personal insurance, vehicle insurance)
54. Do you monitor individual community first responders' insurance with regards to the vehicle used on community first responder callouts?

Additional queries

55. Do you include information regarding your community first responder schemes for any area, excluding response times, when considering your self-declaration to the Healthcare Commission?
56. Have you carried out any analysis to review the impact of the community first responder scheme on performance and/or patient care?
57. If you answered **yes** to the question above, please answer the following. What benefits do the community first responder schemes offer?
58. Are you aware of the 'Proposed Governance Framework for First Responders'?
59. Are there any aspects of the community first responder schemes you would like to see national guidance developed for and consulted on?

Appendix 3: Glossary of drugs that CFRs in each locality are allowed to administer (from figure 8)

Drug	Description
Aspirin	a painkiller and a drug used to prevent blood clots
Salbutamol	a drug used to treat asthma
GTN	glyceryl trinitrate, a drug used for the relief of angina
Entonox	a mixture of oxygen and nitrous oxide taken via a face mask, used to relieve pain
Glucagon	an injection for treating hypoglycaemia (low blood sugar)
Adrenaline 1:1000	a drug used to treat an immediate and severe allergic reaction to a substance e.g. food or drugs
Hypostop	a glucose gel given to raise blood sugar levels
Dextrose	a type of sugar given to raise blood sugar levels
IM injection for anaphylaxis	injection used to treat an immediate and severe allergic reaction to a substance, e.g. food or drugs

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Nottingham
NG1 6BE

Dominions House
Lime Kiln Close
Stoke Gifford
Bristol
BS34 8SR

Kernel House
Killingbeck Drive
Killingbeck
Leeds
LS14 6UF

5th Floor
Peter House
Oxford Street
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