



# A vision for emergency and urgent care

The role of ambulance services



# The Ambulance Service Network

The Ambulance Service Network was established as part of the NHS Confederation to enable the ambulance service to work more closely with other parts of the health service, while retaining a strong, independent voice for NHS and public ambulance services in the UK.

The NHS Confederation is the independent membership body for the full range of organisations that make up today's NHS across the UK. Its ambition is excellence for patients, the public and staff by supporting the leadership of today's NHS. As the national voice for NHS leadership, it meets the collective needs of the NHS and addresses the distinct needs of all parts of the NHS through its networks and forums. The Ambulance Service Network is one of these.

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# Foreword

The challenges facing health services across the Western world are clear: an ageing population, an increase in long-term conditions, and changing expectations and demands from patients and the public alike.

Ambulance services have a vital role to play in addressing these challenges and ensuring all patients get the right care, in the right place, at the right time.

Take stroke care. Every five minutes someone in the UK has a stroke. It is the third biggest killer and a leading cause of severe adult disability. We know that early treatment saves lives and increases the chance of making a recovery, with better outcomes in specialist centres. Ambulance services are helping to develop these new care pathways and ensure patients are taken to the best place, in the best possible time, with the best treatment along the way.

We are also helping to deliver better care for older people and those with chronic conditions like chronic obstructive pulmonary disease (COPD) and diabetes, by developing new roles for staff and new types of services. For example, advanced paramedics can take care to the patient, instead of taking the patient to hospital, and support wider public health strategies by providing health information and advice.

There are other ways ambulance services can help transform patient care. Patients and the public find the current system for accessing health services confusing and complex, not knowing when to see their GP, call NHS Direct or out-of-hours services, go to a walk-in centre or call 999. Better coordination, for example through a new single point of access for urgent care linked to the appropriate service response, would help improve access and patient outcomes and reduce health inequalities.

Ambulance services are also helping to improve care through sharing the wealth of untapped information we have on patients whose needs are not currently being met, and provide a picture of where different problems are occurring. New technology means we can now identify patients who have frequent falls or repeated heart or mental health problems, and whose lives could be transformed through early intervention and better support from primary and community services and social care. Whilst the potential of this information to improve the commissioning of services and support a range of other multi-agency strategies is beginning to be recognised, there is still a long way to go.

Ambulance services care for patients of all ages and with all types of conditions: from mothers in labour and newborn babies to those at the end of their lives, and from the critically ill and injured to those suffering from chronic diseases and minor conditions.

We are working with the commissioners and providers of NHS services, and our partners in social care, to deliver our shared goals of saving lives, improving health and reducing inequalities. We welcome your views on this document and look forward to working with you in the years ahead.



**John Burnside, Chair,  
Ambulance Service Network**



**Liz Kendall, Director,  
Ambulance Service Network**

# Our vision

Our vision is for:

- a single point of access for emergency and urgent care, linked to the appropriate service response
- world-class services nationwide for patients with life threatening conditions and those suffering from major trauma
- integrated and seamless services across primary, secondary and community care, including a range of urgent care services available 24 hours a day, seven days a week.

These services will be backed up by:

- world-class commissioning for emergency and urgent care, involving all NHS and social care

partners, with patients' outcomes and experiences used to measure success

- appropriately trained and skilled ambulance service staff working in multi-disciplinary teams across a variety of settings
- real-time data and information about emergency and urgent care services and patients' health records shared seamlessly between different parts of the health and social care system
- a system of funding that incentivises services to treat patients in the most appropriate location for their clinical need – in specialist centres where necessary and in local communities or people's homes where possible.

# Introduction

Like the rest of the NHS, the ambulance service is faced with a number of challenges that must be addressed in order to provide world-class services for patients. These include:

- **An ageing population.** The number of people aged 65 and over increased by 31 per cent between 1971 and 2006.<sup>1</sup> This trend is set to continue.
- **An increase in the number of people living with chronic diseases.** There are over 15 million people now living with long-term conditions in England. This figure is expected to rise due to the ageing population and the lifestyle choices that people now make.<sup>2</sup>
- **Rising expectations of patients and the public.** Patients and the public rightly expect their health and care services to fit around their needs, and be tailored to their individual concerns.<sup>3</sup>

Ambulance services are one of the most important gateways into the health and social care system. 6.3 million patients called 999 in England in 2006/07 and 5.1 million incidents were attended by ambulance services.<sup>4</sup> This includes patients with life threatening conditions such as stroke and heart attacks and those suffering from major trauma, as well as patients with non-life threatening conditions, such as older people who have had a fall, patients with exacerbated problems from long-term conditions, and those with minor injuries or illnesses.

It is this latter group – those with urgent rather than life threatening conditions – that is driving the increase in demand for ambulance services. Over the last decade the number of people calling 999

has increased by between 5 and 7 per cent each year.<sup>5</sup> However, the proportion of patients we treat with a serious or life threatening condition has remained constant, at around 10 per cent.<sup>6</sup>

The role of the ambulance service is to deal with all of these callers in the most clinically appropriate and cost-effective way.

We are already improving our ability to assess and diagnose patients, both over the telephone and face to face. We are also developing a wider range of responses to the health and social needs of our callers. This includes delivering even faster responses to the most serious conditions and transporting patients to the most appropriate specialist unit, providing more and better care for patients in their local community or at home, and solving patients' problems over the telephone.

However, it is only by working more closely with all our partners in health and social care that we can transform the experiences and outcomes of all the people we serve, and deliver better value for money for taxpayers.

Together, we need to:

- develop services that deliver world-class outcomes for those patients with critical, life threatening conditions such as stroke, trauma and coronary heart disease
- simplify access and improve services for patients with non-life threatening conditions, who will often be better cared for outside hospital – in local communities and at home.

# World-class outcomes for patients

**“Our aim should be nothing short of creating a world-class NHS that strives relentlessly to improve the quality and personalised nature of the services and care patients receive.”**

A world-class NHS means delivering world-class outcomes and experiences for all patients.

## Patients with life threatening conditions

For some of the most critical, serious cases we do not do as well as we should for patients in this country. Examples include stroke, trauma and coronary heart disease (CHD) – heart attacks and cardiac arrests.

Condition	The case for change
<b>Stroke</b>	<p>Every five minutes someone in the UK has a stroke.</p> <p>A stroke is a brain attack. It happens due to a clot or bleed in the brain, which causes brain cells to die.</p> <p>Early treatment saves lives and increases the chance of making a better recovery. For 80 per cent of strokes, treatment being received within three hours of symptom onset is critical.</p> <p>Stroke is the third biggest killer and a leading cause of severe adult disability in the UK.<sup>8</sup></p>
<b>Trauma</b>	<p>One third of patients suffering from trauma die unnecessarily.<sup>9</sup></p> <p>Nearly half of severely ill and injured patients do not receive good quality care.<sup>10</sup></p>
<b>CHD leading to a heart attack</b>  <b>CHD leading to a cardiac arrest</b>	<p>For the first three hours after onset of symptoms, every minute of delay in receiving clot-busting drugs for heart attack patients costs on average 11 days of life.<sup>11</sup></p> <p>For every minute that a person in cardiac arrest does not receive basic life support (CPR) their chance of survival reduces by 20 per cent.<sup>12</sup></p> <p>The proportion of people who leave hospital and return to a normal life following a witnessed cardiac arrest in the community is around 15 per cent in places such as Oslo and Seattle; in the UK it is no more than 5 per cent.</p>



### Case study: Improving care for patients with heart attacks

London Ambulance Service (LAS) has worked closely with nine specialist centres in London to develop protocols to improve care for patients suffering from heart attacks.

Ambulance crews use an electro-cardiograph to diagnose whether the patient is having an ST-elevation myocardial infarction – a common type of heart attack. They can then take the patient direct to a cardiac catheter laboratory for specialist treatment, including primary angioplasty, rather than to A&E. Primary angioplasty (where a balloon is inserted and inflated to open the artery at the point of the blockage and kept open with a stent) offers a much better chance of survival and a quicker recovery than the standard treatment, thrombolysis (the administration of clot-busting drugs) followed by transport to the nearest A&E.

In 2007/08, LAS took 86 per cent of patients suffering from an ST-elevation myocardial infarction (1,280 people in total) directly to a catheter laboratory.

Each of these conditions is life threatening, time critical and occurs in the community. No one goes to hospital to have a cardiac arrest or stroke: they have them at home, in the local neighbourhood or in the workplace.

To improve outcomes for patients suffering from these conditions, treatment needs to start rapidly after symptoms begin. The ambulance service needs to get to the patient quickly, commence treatment and continue treating the patient whilst transporting them to the best place for their care, which will often be in a specialist centre.<sup>13</sup>

Ambulance services will work with the commissioners and providers of NHS services to

*'A world-class NHS means delivering world-class outcomes and experiences for all patients.'*

develop appropriate local care pathways for patients with life threatening conditions. We will also ensure the right protocols are in place for the rapid transfer of people to appropriate centres of care, and that our staff have the skills and training they need to treat patients on the way.

### Case study: Critical care paramedics

South East Coast Ambulance Service (SECamb) is improving the care it provides to critically ill and injured patients by introducing a specialist paramedic called the critical care paramedic (CCP).

Mark Lilley, one of the first CCPs in the country, says:

"As a critical care paramedic, I am here to help the small number of patients who are critically ill or injured, such as victims from road traffic collisions.

"I've completed an 18-month postgraduate qualification which has given me extended clinical skills to better treat critically ill and injured patients, from babies to adults. I will be able to use more pain relief drugs and have greater resuscitation skills.

"It is really important that if you are critically injured or ill you are taken to the right hospital which can provide specialist treatment for your condition – this may not be the closest hospital. Critical care paramedics, working alongside doctors, can take seriously ill patients to the place where they will have the best chance of survival, even if this is further away, because we have specialist skills that enable us to treat these types of patients safely and effectively."



### Case study: The Advancing Quality Initiative

Ambulance services and hospitals in the North West of England are developing new measures to improve the quality of care being provided in five clinical areas: pneumonia, heart attack, heart failure, heart bypass operations, and hip and knee replacements.

These are based on simple clinical measures (such as the administration of aspirin and fibrinolytics in ambulance services for patients who have suffered a heart attack), patient experiences and patient-reported outcomes, and are backed up with financial incentives to reward best practice. The measures have been the subject of extensive consultation and are supported by national bodies such as the National Institute for Health and Clinical Excellence (NICE).

### Patients with urgent, long-term and other conditions

Most patients seen by the ambulance service on a daily basis have non-life threatening conditions. This includes patients who may have fallen in the home or workplace, people who have exacerbated long-term physical and mental health problems, and those with minor illnesses and injuries.

Poor access to primary and community services, particularly in deprived areas, may be linked to greater use of ambulance services. For example, recent research by East Midlands Ambulance Service has shown that ambulances are four times more likely to be called out to deprived areas than to affluent ones.

Providing care in the local community or at home, so patients don't have to go into hospital unnecessarily, will often deliver the best outcomes and experiences for patients.

*'Providing care in the community so patients don't have to go into hospital unnecessarily, will often deliver the best outcomes and experiences for patients.'*

### Case study: Helping patients better manage chronic conditions

West Midlands Ambulance Service is developing a new service to help patients with long-term illnesses like heart disease to better manage their condition and to reduce the number of emergency admissions.

Patients are given a simple handset which is personalised to fit their individual condition. Every morning, the patient provides information on a range of issues, such as their blood pressure, weight, whether they have taken their medication, how far they can walk whilst breathing normally, or whether their ankles are swollen. The handset is then plugged into a telephone socket so that the information can be transmitted to a 'hub' within the ambulance service control centre. If the data isn't received, or if it is outside the patient's normal parameters, an alert is generated. The patient may then be rung and reminded to use their handset, or a paramedic or other member of the ambulance service may be sent to provide care in the patient's home.

It will also help deliver better value for money for taxpayers. 70 per cent of the 5.1 million incidents attended by ambulance services in England in 2006/07 resulted in an emergency patient journey – 3.6 million in total. The cost of sending an ambulance to someone who calls 999 is around £200. The total cost to the NHS will be far greater if patients are then taken to Accident and Emergency and admitted into hospital overnight or for longer.



We need to ensure patients get the most appropriate and cost-effective care whenever possible.

Ambulance services are already improving their ability to assess and diagnose patients, both over the telephone and face to face. For example, London Ambulance Service has developed an urgent operations centre (UOC) which offers patients who do not have a serious or life threatening condition, and who are not in a public place, clinical telephone advice. Around 60 per cent of the calls that are referred to the UOC are resolved without sending a frontline ambulance.

Ambulance service staff are developing new skills and roles so they can take care to the patient, rather than always taking the patient to hospital. For example, emergency care

*'Whilst significant improvements are being made, there is still a long way to go before patients get the seamless and integrated urgent care services they need.'*

practitioners and paramedic practitioners are assessing, diagnosing and treating minor illnesses and injuries in the community or in people's homes.

Ambulance services are helping to develop new types of services such as minor injuries units and urgent care centres. In some parts of the country ambulance services can also refer patients to other health and social care providers, including in- and out-of-hours GP services, intermediate care and falls teams where this is appropriate.

### Case study: Urgent care services

The minor injuries unit at Weymouth Community Hospital in Dorset, which is now provided by the South Western Ambulance Service (SWAS), brings together primary care and ambulance staff in the community to better meet patients' needs. The unit includes nurse practitioners, triage nurses and emergency care practitioners (paramedics with greater diagnostic and treatment skills).

A purpose-built urgent care centre is now being developed. This will provide a mix of health and social care services, including GPs, district nurses, emergency care practitioners, physiotherapists, occupational therapists, mental health crisis intervention teams and social workers.

There will be new x-ray and diagnostic facilities, alongside 'short-stay' beds where patients will be able to be assessed and observed before discharge. The urgent care team will also carry out home visits if necessary to ensure patients receive a more personalised service.

Whilst significant improvements are being made, there is still a long way to go before patients get the seamless and integrated urgent care services they need.

The challenge now is for the whole health and social care system to work together to develop the most appropriate care pathways so all patients get the right care, in the right place, at the right time.

Ambulance services will work with all our partners, including strategic health authorities, primary care

*'The ambulance service, working in partnership with others, has a key role to play in improving public health.'*

and practice-based commissioners, hospitals, mental health services and social care, to deliver this goal.

### Improving health, tackling inequalities

Our goal must ultimately be to prevent people from becoming ill or injured in the first place.

The ambulance service, working in partnership with others, has a key role to play in improving public health. This is already happening in some parts of the country. For example, ambulance services are helping to run injury prevention programmes, training members of the community in resuscitation techniques and increasing awareness amongst young people about the effects of alcohol, as well as providing health and self-care advice to individual patients.

However, ambulance services could play a much greater role in improving health and well-being. For example, ambulance services can work with local authorities, the police and the wider NHS to develop strategies to reduce alcohol consumption, providing data to identify geographical areas of concern, and groups of patients with particular needs, and to develop the appropriate response.

We can also contribute to joint strategic needs assessments, local strategic partnerships and local area agreements to improve public health and tackle inequalities.

# Simplifying access for patients, delivering care 24/7

Patients and the public say that accessing healthcare services can be confusing, complex and extremely difficult at times, especially out of hours. Patients often don't know who they should call – their GP, NHS Direct or 999.

Instead of regarding some calls to 999 as 'inappropriate', commissioners and providers of health and social care need to better understand how people are accessing services and use this information to ensure the right mix of care is available at the right time, particularly for patients who live in disadvantaged communities and those who are hard to reach.<sup>14</sup>



*'A new, easily remembered national telephone number for urgent care – 888 or 247 – to sit alongside 999, could help simplify access and improve the coordination of care.'*

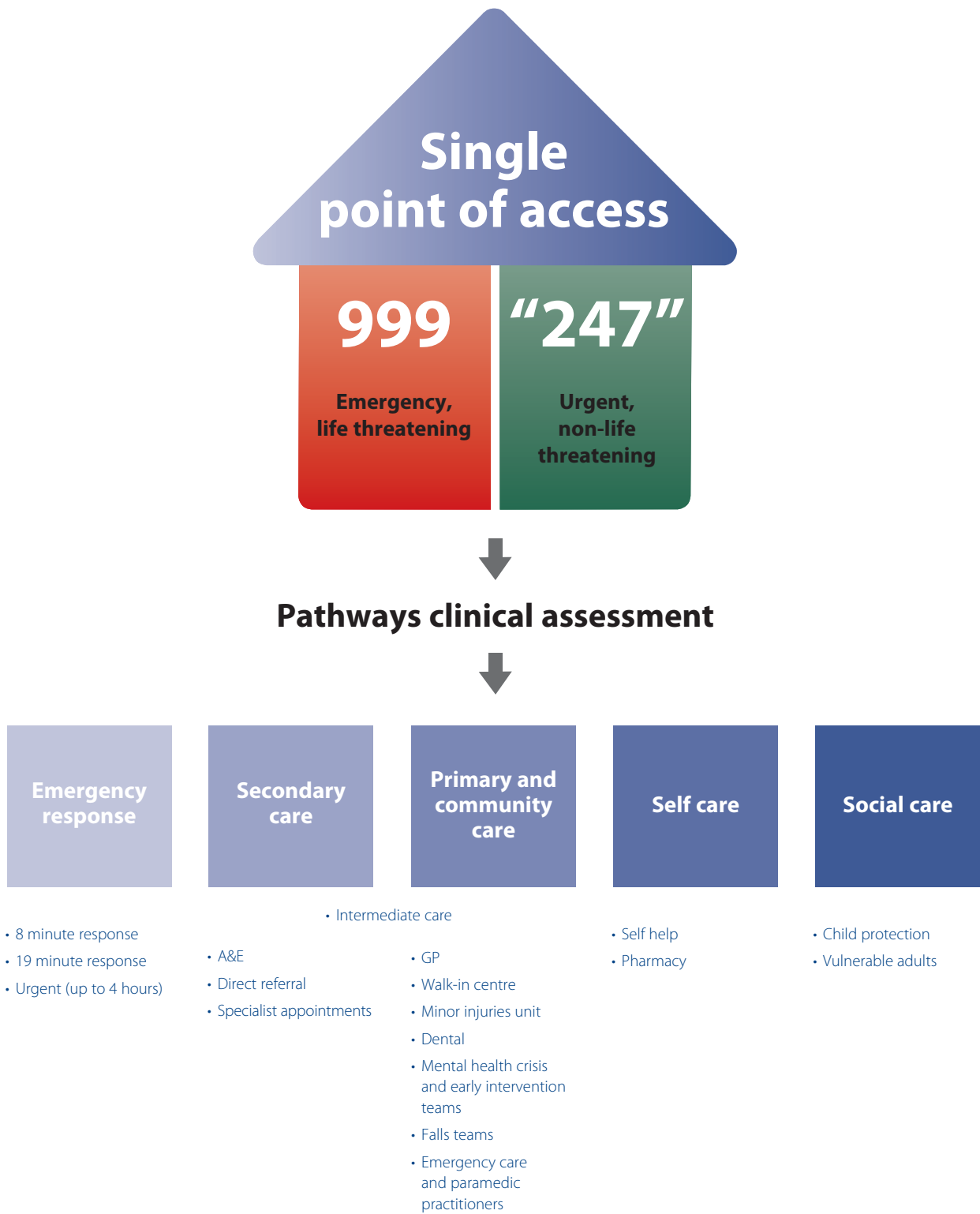
The first step should be to develop a single point of access for urgent care so that all patients are assessed and prioritised in the same way, whichever number they call. The single point of access should be coordinated regionally and linked to the appropriate service response. This would require a directory of services with real-time information, showing where urgent care services are available near to the patient including walk-in centres, GPs (in- and out-of-hours), urgent care centres, district and other community nursing teams, and emergency care and practitioner paramedics. The information would need to be collected, and regularly updated locally (see Figure 1).

A new, easily remembered national telephone number for urgent care – perhaps 888 or 247 – to sit alongside 999, should be piloted to assess the potential to further simplify access, improve public awareness and support the more effective coordination of care. This model is already being developed in the North East via a new system called NHS Pathways.

A single point of access and response, supported by a local directory of services for urgent care, would in turn help identify unmet patient needs and gaps in service provision. This data would be shared with primary care and practice-based commissioners to help drive improvements in care and develop a range of primary, community and other urgent care services available 24 hours a day, seven days a week.



Figure 1. Single point of access



### Case study: NHS Pathways

North East Ambulance Service (NEAS) is developing a single point of access using NHS Pathways – a new, clinically robust and consistent telephone assessment system.

NHS Pathways means that all types of 999, urgent and social care calls can be triaged consistently and appropriately. It is backed up by a directory of services which includes 'real-time' information on which urgent care services are available locally, such as GP surgeries, out-of-hours services, walk-in centres and urgent care nursing teams.

Patients who have been assessed via the NHS Pathways system, can then receive the most appropriate response for their need – whether this is an ambulance or rapid response vehicle, a referral to an urgent care service, or self-care advice.

### Case study: Clinical Audit Reporting System (CARS)

In South Central Ambulance Service, patient report forms that are completed by paramedics after each emergency response are scanned into the CARS system. The data from these forms is used to audit and improve clinical performance within the trust.

The system can also be used by primary care trusts (PCTs) and other commissioners to identify gaps in provision and unmet patient need.

CARS can be used to pinpoint patients who frequently call 999, but whose health could be improved if they had access to alternative services in the community. CARS shows where emergency responses take place, which could be the address of an individual patient or a particular area or building.

Recent examples identified in the South Central area include:

- 65 year old patient: 54 emergency responses to chest pains in seven months. Appropriate primary and community care put in place. Zero emergency responses in last six months.
- 82 year old patient with diabetes: 28 emergency responses to in four months. Appropriate care put in place. Zero emergency responses in the last five months.
- Night club: 60 responses to assaults and alcohol induced emergencies in 12 months. Evidence from ambulance service put into court. Conditions put on license, plus new management at club. Emergency responses reduced by 90 per cent to just six incidents in following 12 months.

# Making the vision a reality: what needs to change?

The NHS has delivered major improvements in emergency and urgent care in recent years. But there is a long way to go before we can make this vision a reality. Ambulance services will work with the commissioners and providers of NHS services and with our partners in social care, to achieve our shared vision of providing a world-class service for all patients.

Wider changes in the system are needed to deliver this vision.

The NHS needs a performance management system that is driven by measures of patients'

outcomes and experiences. At present, performance management of ambulance services is largely focused on response times. Whilst this is an important element in achieving world-class outcomes for patients, it is only one element. A patient's outcome or experience is not solely improved by getting to them quickly; ambulance service staff must also provide appropriate and effective treatment when they get there to make a difference.

Outcome measures could be specific to conditions, for example assessing the percentage of stroke patients fast-tracked to specialist services for CT





scanning within three hours of symptom onset, or the percentage of patients with a long-term condition who are treated by paramedics out of hospital, or referred to another appropriate community service. Patients' experiences of services also need to be assessed, for example using regular satisfaction surveys, and used to help drive improvements in care.

A major barrier to adopting this approach is data sharing across the health and social care system. We must change the historical practice of keeping data within individual providers – for example, hospitals and mental health services keeping their data, ambulance services keeping ambulance service data – to one of shared data systems. World-class outcomes depend on an holistic approach to care – and effective measurement of outcomes requires an holistic approach to data sharing.

We also need to develop a system for funding urgent and emergency care (contracts and tariff) that incentivises services to give patients the most appropriate care, rather than resorting to taking them to the closest A&E hospital, which we know is not always the most appropriate place of treatment for their need.

*'Appropriately trained and skilled ambulance service staff should work in multi-disciplinary teams across a variety of settings.'*

## Summary

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- A single point of access is required so that patients are consistently assessed and prioritised whichever number they call, and receive the appropriate service response. A new single number for urgent care – 888 or 247 – to sit alongside 999 should be piloted to assess its potential to further simplify access, improve public awareness and support more effective coordination of care.
- A range of services across primary, secondary and community care should be available 24/7 – including GP out-of-hours, walk-in and urgent care centres, minor injuries units, social care and mental health services, as well as ambulance services.
- Real-time information and data about emergency and urgent care services and patients' health records should be shared seamlessly between different parts of the health and social care system.
- Appropriately trained and skilled ambulance service staff should work in multi-disciplinary teams across a variety of settings, able to take care to the patient as well as taking the patient into hospital or other place of care.
- A system of funding is needed that incentivises services to treat patients in the most appropriate location for their clinical need – in specialist centres where necessary and in local communities or people's homes where possible.
- Patient outcomes and experiences should be adopted as a measure of success.

# Have your say

We want to engage with all our partners in health and social care, as well as people within the ambulance service, to develop this vision and make it a reality.

If you would like to send any comments, or discuss the vision and proposals contained in

this document in further detail, please contact Sangeeta Sooriah at the Ambulance Service Network.

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# A vision for emergency and urgent care

The challenges facing health services across the Western world are clear: an ageing population, an increase in long-term conditions, and changing expectations and demands from patients and the public alike.

Ambulance services have a vital role to play in addressing these challenges and ensuring all

patients get the right care, in the right place at the right time.

This report outlines how ambulance services will work with the commissioners and providers of health and social care to save lives, improve health and tackle inequalities.

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