Future National Clinical Priorities
for Ambulance Services in England
National Ambulance Service Medical Directors (NASMeD)
April 2014

Background

Ambulance services have delivered significant improvements to the standard of clinical care and services to patients over recent years.¹ Patient experiences of 999 emergency services are consistently positive with patients having a high level of trust and confidence in ambulance staff who attend to them. Demand continues to rise year on year, this may be due to the ease with which people can access 999, a reluctance to use alternatives and possibly due to the confusing array of alternative offerings.² This rising demand poses challenges in terms of achieving current response time targets and appropriate clinical care.

Paramedics continue to develop from their historical role of delivering first aid and transportation to hospital, towards a greater emphasis on decision-making, treatment and referral. This increase in clinical capability has led to the realisation that paramedics can make a fundamental contribution to unscheduled and urgent care and this was recognised by the end of phase 1 urgent and emergency care review-'transforming urgent and emergency care services in England.'

There is significant potential for further development of the paramedic role to enable an enhanced clinical service for the benefit of patients. The future approach should be towards a professionalised paramedic workforce with enhanced clinical capabilities, clinical leadership and clinical decision making skills, to work autonomously with the support and recognition from other professional colleagues.

The paramedic evidence based education project (PEEP) published in August 2013 reviewed the existing evidence to support the future direction of paramedic education and training. It recognised that local training currently being delivered differs dependent on location, and therefore provides trainees with different experiences and levels of support. The report proposed the introduction of a national education

and training framework for paramedics. The recommendations in the report are now being reviewed by Health Education England.  

Ambulance services have delivered healthcare improvements and changes to clinical practice through their ability to assess, treat and convey for patients with critical care needs such as stroke, cardiac and major trauma. However appropriate clinical care does not always mean conveying patients to the emergency department and ambulance services are in a unique position to develop our workforce towards improved models of care in the community and contribute to the developing urgent care agenda. There could be financial benefits to the wider health economy by developing the paramedic workforce to meet the needs of patients with urgent health problems.

**Aims of this strategy**

This strategy aims to build on current thinking by suggesting innovative ideas about how ambulance services can improve clinical care in the future, working jointly with our commissioners, our colleagues in primary, secondary, mental health and social care and based on recognition of our pre hospital and urgent care experience, knowledge and expertise.

Recent and ongoing developments around the transformation of urgent and emergency care, led by NHS England have emphasized the need for changes to the clinical care provided, most importantly for people with urgent health care needs, the needs of our ageing population and to ensure more people are cared for closer to home.

This strategy sets out a framework for future clinical development based on seven key clinical areas. It will help ensure that ambulance services continue to develop, using the best available evidence and focusing on the most important issues for people using their services.

This strategy is a key element of the wider work by the AACE national programme. It particularly focuses on the urgent care agenda; however the pivotal role of ambulance services, working with the other emergency services, will need to be reflected in commissioning arrangements.

---

3 Allied Health Solutions (2013) *Paramedic Evidence Based Education Project*
Seven specific areas of clinical care identified as the clinical priorities:

1. Emergency care

Continuing to improve the clinical care for patients with life threatening conditions remains a fundamental priority for ambulance services.

The priorities are:

1.1 Ensure that there are continued developments, including work with partner emergency services to develop joint strategies to improve out of hospital cardiac arrest survival.

1.2 Continue to develop pathways and improve the clinical care for patients presenting with a range of cardiac conditions, including high risk acute coronary syndromes and arrhythmias.

1.3 Continue to ensure that all patients with a heart attack (STEMI and non STEMI) are identified and treated appropriately in the pre hospital phase and have timely access to appropriate and agreed care pathways i.e. 24/7 access to primary percutaneous coronary intervention and expert cardiology assessment.

1.4 Development of robust guidelines for the identification of emergency arrhythmias i.e. those that are clinically important, can be recognised by paramedics and require expert in hospital management

1.5 Continue to improve the treatment, systems and pathways for patients presenting with major trauma

1.6 Ensure patients with vascular emergencies (including ruptured abdominal aortic aneurysms) are assessed, treated and conveyed to the most appropriate facility to manage their care. This will include working with our partners as further reconfigurations of services take place.

1.7 Further development of pre-hospital screening for conditions such as aneurysms, ischaemic limbs and use of cardiac markers such as troponin.

1.8 Further development of the clinical care and pathways for patients presenting with symptoms of stroke- paramedics can facilitate urgent transfer to a hyper acute stroke units (HASU) that helps mitigate against long term adverse outcomes and we know that a fast response to stroke reduces the risk of death and disability.
1.9 Further development and review of the roles of advanced, specialist and critical care paramedics, ambulance nurses and doctors and how their advanced clinical skills can be utilised to benefit patients with urgent or life threatening conditions.

1.10 Ensure that ambulance services continue to improve their emergency preparedness and resilience, working with the HART and MERIT teams.

1.11 Further develop the utilisation of public access defibrillators and the use of community responders.

1.12 Consider the development of a national standard tool for pre-alerting to hospitals, to include medical and trauma patients.

1.13 Consider the use of a standard pre hospital warning score-such as the National Early Warning Score for use in both adults and children.

1.14 Validate the use of clinical assessment algorithms to facilitate the recognition of potentially life threatening sepsis in adults and children in the pre hospital environment.

2. Urgent care

Ambulance services need to work in partnership with other health care providers to help deliver a coherent 24/7 urgent care service. Ambulance service should become and be seen as community based mobile urgent treatment services rather than solely a means of transportation4.

The priorities are:

2.1 The workforce of ambulance services should be commissioned to further develop its urgent care capabilities, particularly in relation to expanding the assessment clinical decision making skills and diagnostic skills of ambulance clinicians. Traditionally ambulance clinicians have been trained in emergency care which enables them to be very proficient in identifying patients with serious life threatening conditions, however it is clear that the majority of patients contacting the 999 service have urgent care as opposed to emergency care needs.

2.2 Existing systems should be commissioned to work more effectively together including whole pathway audit to provide information on patient outcomes and experience, in order to determine future commissions and decommissioning decisions.

2.3 Consider how ambulance services, due to their large geographical areas, call centres and 24/7 capabilities could become regional coordinators of urgent care.

2.4 Existing health care professionals in different parts of the system with appropriate core education and skills should be developed and educated to expand the urgent care workforce e.g. potential use of nurses, pharmacists, matrons, mental health nurses and GPs. This should be in line with the Allied Health Professional Career Framework.

2.5 Further development of an education system for health professionals including nurses, doctors and paramedics for urgent care. This would allow a new workforce model to be developed. There is likely to be significant interest from paramedics towards the later part of their careers when the physical aspects of their roles in pre-hospital care may limit their emergency care role.

2.6 Use of co-location of systems in community settings and acute trusts with clear referral guidelines supported by senior clinical judgement would mean fewer front end pathways, but higher use of the correct services for the acuity and condition of the patient.

2.7 Enable ambulance clinicians to have comprehensive access to special patient notes with one system across whole health communities so ambulance services see the same message about a patient’s special situation as NHS 111, out of hours, emergency department etc. This would enable access to individual care plans, end of life plans, records of DNACPR forms, mental health pans and violent patient warnings.

Prescribing for paramedics

Independent prescribing for paramedics should be considered as a priority. Non-medical prescribing by paramedics will lead to new ways of working to improve clinical outcomes for the patients and enable more patients to be managed in the community. Benefits will include:

- Enabling early intervention to improve patient outcomes
- Reducing avoidable hospital admissions.
- Enabling a greater focus on reablement, including return to work.
- Helping older people to live longer in their own home.

Ambulant injuries and illness

A number of models across ambulance services have been developed that have extended the clinical assessment, diagnostic and treatment skills of paramedics. This has enabled paramedics to be able to manage lower acuity injuries (e.g. use of wound toilet and wound closure techniques) and non-life threatening illness (e.g. urinary tract infections) in order to avoid attendance at emergency departments and hospital admissions.

A paramedic with appropriate training, enhanced by the ability to prescribe, can assess, treat and refer a range of minor conditions. This can be aided by being able
to administer a wider range of medications for example to help prevent spasm and manage pain in a patient presenting with muscular skeletal lower back pain or to administer antibiotics for infections.

Development of the workforce to contribute to the urgent care agenda, needs to consider both the face to face element, and the hear and treat within the ambulance control centres.

**NHS 111 services**

There are many opportunities for the further development of over the phone assessment and management of 999 and NHS 111 callers. Ambulance services that currently provide NHS 111 services, are recognising the benefits of being able to improve the communication, pathways and processes between the 999 and NHS 111 systems. There are new opportunities to improve the patient experience and ultimately provide right care, right place with one call. This is enhanced by having a cohesive, joined up service, without the need to liaise with a number of different providers. This will lead to improved care, rather than a fragmented approach which can be seen currently in some areas.

The future clinical models for ambulance services and NHS 111 could include increasing the clinical input and the development and provision of a clinical care coordination service or central care advice and support centre that could be for specific groups of patients such as:

- Patients at the end of life
- Frail elderly
- Patients with mental health needs including place of safety
- Patients requiring urgent dental advice

Patients with complex needs where hospital admission is often not the most appropriate care, would benefit from coordination of care across agencies and sharing of crucial patient information to ensure appropriate and effective care.

A single point of contact model or gateway model could be developed as part of the NHS 111 service, staffed by specialist clinicians and nurses, allowing a seamless single point of contact for patients.

Ambulance clinicians should also be able to access emergency and urgent social care, this could be facilitated through the NHS 111 service and directory of services.

**3. Mental health**

Calls to mental health patients are common presentations to 999 and urgent care settings at times of crisis and can result in frequent calls from some patients and often involve influences of alcohol and drugs. Mental health patients can pose difficult challenges for the ambulance services and for clinicians, especially around patient assessment, safety, agreeing appropriate care plans and trying to avoid inappropriate attendance at emergency departments.
The priorities are:

3.1 Work with our partners in mental health trusts to ensure timely and appropriate transport for mental health patients in crisis, to a destination that is suitable and sensitive for their needs. This is to ensure that patients with mental health problems are not conveyed inappropriately to emergency departments and police premises.

3.2 Consider the development of a pre hospital mental health risk assessment tool that is suitable for ambulance clinicians and the settings that they work in.

3.3 Further education for ambulance clinicians in mental capacity, how to assess it and how to apply appropriate aspects of the mental health legislation. Also consider access to approved mental health practitioner training programmes for paramedics.

3.4 Consider the development of a specialist mental health paramedic role as the current education for paramedics in mental health is very limited and variable.

3.5 Develop processes that enable sharing of information between services to enable more effective integrated, safe and joined up care for mental health patients.

3.6 Consider the commissioning of mental health specialists within 999/NHS 111 control centres. This service could then provide timely, specialist advice and support to clinicians, manage frequent callers and improve systems for managing mental health patients more appropriately.

3.7 Improve the care and recognition of patients with dementia, including those under the age of 65 with younger onset dementia. Ambulance clinicians will benefit from increased knowledge and awareness of dementia to assist in the identification of patients who require dementia-appropriate community services, and initiation of appropriate liaison / links with these services. This could result in fewer unnecessary admissions for patients with dementia to hospitals following collaborative work between the ambulance service and health and social care providers.

3.8 Consider further education of ambulance clinicians for people with learning disabilities.

3.9 Evaluate the effectiveness of current Section 136 processes and procedures, in conjunction with the police and mental health services to identify common themes.

4. The frail elderly and falls

Falls are one of the most common primary presenting complaints to ambulance services and we all appreciate the fact that we have an ageing population placing additional demands upon services. The frail elderly commonly present to ambulance services, represent a large proportion of acute admissions to hospital.
NICE (2013) state that the over 65’s have the highest risk of falling, with 30% of people older than 65 and 50% of people over 80 falling at least once a year. Given that ambulance services are commonly the first point of contact following the falls episode, opportunities for improvement in care are significant.

The priorities are:

4.1 Review the competencies, education and skills needed for ambulance clinicians to assess and manage frail older people. Consider delivering a more specialist programme which would both consolidate the knowledge, skills and attitudes needed to deliver best practice as well as highlight the importance of this specialty in an ageing population. Ensure emphasis on clinical decision making, psychosocial context, attitudinal aspects of care, communication barriers and techniques, assessment of capacity, as well as training in ethics and law, with reference to advance decisions and advance care planning and working with the wider health care team.

4.2 Further development of pathways and direct ambulance access to community care, community elderly care physicians, access to frailty/step up/step down/intermediate care units and virtual wards rather than conveyance to the emergency department.

4.3 Review of pathways for patients following a fall to ensure robustness, effectiveness, consistency, timeliness of follow up and falls prevention strategies. The pathway must ensure that the patient receives a multifactorial falls risk assessment where appropriate and put in place falls prevention strategies.

4.4 Consider how ambulance services could be commissioned to provide a bespoke and specific response to frail elderly and falls patients. Particularly in urban areas with high demand of calls to falls and the frail elderly, this enhanced service could provide the initial over the phone assessment, appropriate response, falls assessment and further management, discharge or referral.

4.5 Consider how ambulance services could be commissioned to assist in the development and delivery of advanced health technologies. Opportunities and efficiencies could be realized in areas such as telehealth and telecare, building on the existing call handling, infrastructure, resilience and control functions within ambulance services.

5. Long term conditions

In England, more than 15 million people have a long term condition. This figure is set to increase over the next 10 years, particularly those people with 3 or more conditions. Examples of long term conditions include high blood pressure, depression, dementia, epilepsy, COPD, heart failure and arthritis.

4 NICE (2013) Clinical Guideline 161 Falls: Assessment and prevention of falls in older people, Manchester
Patients with long term conditions should have a personalised care plan and along with carers and relatives be supported in how to manage their own condition. However, many people may be undiagnosed or have an exacerbation and feel it necessary to access emergency or urgent care.

The priorities are:

5.1 Ambulance services need to be able to access special patient notes including access to information about specific patient care plans/end of life plans in order to follow them and ensure the right care by being fully informed about the patient’s ongoing condition and plans. However access to information can be difficult due to the variation in systems in current use. Investment in the technologies and systems to enable this, including access to the NHS number and GP systems will help.

5.2 Further development of referral pathways so that paramedics attending a patient with a long term condition can refer the patient, 24/7, to an appropriately skilled health professional to access prompt follow up for the patient and if appropriate to access timely social care in order for the patient to remain safely at home. Appropriate professionals to refer to may include nurse specialist, community matron, case manager or GP, capable of treating and arranging for follow up care. Alternatively the paramedic could be provided with the appropriate training and skills, at an advanced or specialist paramedic level to be able to assess, treat, refer and discharge the patient safely and autonomously.

5.3 Paramedics can play a role in recognizing patients with undiagnosed long term conditions and need to be able to refer patients for more specialised support via their GPs (to prevent unnecessary duplication of activity). Examples of conditions include heart failure, COPD and epilepsy.

5.4 Development of paramedic prescribing (e.g. broad spectrum antibiotics) would enable timely and appropriate treatment to acute exacerbations of long-term conditions enabling the patient to remain at home. Further education of paramedics in medicines management and a greater understanding of pharmacology and interactions with complex and/or co-morbidity patients would aid decision making and care planning.

5.5 Development of a robust, funded, national database of patients that present to ambulance services with hypoglycaemia, will aid further research and development of prevention strategies and contribute to reducing this common diabetic complication.

6. Care for patients at the end of life

Ambulance services may be involved at any stage of a patient’s care towards the end of life. Planned journeys include transferring patients who are approaching the end of life, for example from acute setting to preferred place of death. Unplanned involvement is common when a patient has a sudden crisis or deterioration, worsening symptoms and anxious carers and family members call 999. Paramedics are frequently at the scene at or shortly after the point of death, and have to make
decisions on whether resuscitation is required or if it would be futile, often based on limited knowledge of the patient or their end of life plan at this point. 6

The priorities are:

6.1 Ensure that there is generic documentation around do not resuscitate orders and when and when not to resuscitate policies.

6.2 Ensure ambulance systems are linked to patient specific end of life care plans so that paramedics have timely access to these care plans before they arrive with the patient.

6.3 Ambulance service involvement with the development of end of life registers, potentially ambulance services can host these registers.

6.4 Direct access to specialist palliative advice/services 24/7 for ambulance clinicians.

6.5 Commissioning of bespoke transport and booking processes to ensure rapid discharge or transfer for patients who are at the end of life.

6.6 Investment in regular education and training in end of life for ambulance clinicians

6.7 Develop procedures around how paramedics can administer appropriate end of life medications to support patients who have accessed the ambulance service.

6.8 Commissioning of integrated information systems, education programs and appropriate arrangements for urgent 24/7 care provision

7. Public health and prevention

Ambulance services can make significant contributions to the public health agenda. Ambulance clinicians are routinely in situations and in patient’s homes where they can identify health care prevention issues such as lack of heating, social care needs, mental health needs and the recognition of vulnerable adults. This information needs to be shared with other health and social care partners and more referral pathways developed.

The priorities are:

7.1 Identification of undiagnosed diseases. For example whilst assessing a patient, conditions such as hypertension, atrial fibrillation and high blood sugar readings can be identified. Where the patient does not require immediate conveyance to hospital,

robust pathways for further management should be developed via onward referral pathways to primary care.

7.2 A patient presenting with conditions such as hypertension, deep vein thrombosis or obesity are at risk of a transient ischaemic attack or a stroke. Paramedics are often in a clinical situation where they can observe and recognise transient motor/speech dysfunction, cognitive and behavioural changes which could signal a stroke risk. Paramedics can contribute to patient care at the prevention, the assessment or diagnosis stage of the stroke pathway.

7.3 Alcohol related admissions and 999 calls for alcohol and substance misuse problems warrant development of referral pathways, brief interventions and preventative strategies including highlighting locations of violent incidents.

7.4 Ambulance services should be commissioned to provide and analyse data on call outs, identify hotspots linked to population and demographics e.g. alcohol related 999 calls, preventable accidents, violence.

7.5 Ambulance clinicians can play a proactive role and contribute to the education of domiciliary care staff and staff in nursing and residential care settings in relation to health promotion, when to call for primary care support, falls prevention, who to call, and when to use 999/NHS 111.

7.6 Further explore the role of ambulance services in community support programmes around public health initiatives.

7.7 Ambulance clinicians can play a more proactive role in public health issues such as smoking cessation, asthma management, management of high service users/frequent callers and other condition specific care plans. Additional examples where ambulance services could play in public health both for their staff and patients include:

- Public health campaigns, diet, fitness, obesity, smoking, blood pressure checks, stress
- Cycle to work and exercise programmes
- Falls prevention
- Mental health
- Social care needs-recognition, referral
Conclusion

This strategy sets out the future clinical priorities for ambulance services that have been developed by the National Ambulance Services Medical Directors group (NASMeD) and agreed through the Association of Ambulance Chief Executives (AACE).

To support this strategy, significant work needs to take place with our commissioners and we all need to embrace the potential that ambulance services can contribute to the health system and improve the care of patients.

Ambulance services need to continue to be a significant part of and contribute to the urgent and emergency care review being led by Sir Bruce Keogh.

Additionally and underpinning this strategy the following should be considered:

- To continue to provide timely and appropriate clinical responses to patients with life threatening conditions, working with our partners in emergency care and ensuring resilience in the event of major incidents.
- A future, robust, education framework for paramedics, extending the scope of their skills and capabilities to improve patient care.
- Further clinical audit and research opportunities
- Recognition and implementation of effective quality improvement methodologies and evidence based transformation.
- Use of a ‘positive deviance’ approach to spread excellent practice, recognising trusts that demonstrate exceptional performance in a particular area of care
- Further development of clinical leadership and professionalism of the paramedic profession
- Improved information technology systems to enable patient information to be recorded electronically and relevant patient information to be shared between organisations

Document approved by NASMeD 18th March 2014

Document approved by AACE CEO’s 21st March 2014

Review date: March 2019