



Clinical Strategy

2016 - 2021



DOCUMENT PROFILE and CONTROL.

Purpose of the document: This document sets out the Clinical Strategy for London Ambulance Service from 2016 – 2021. The Clinical Strategy will support the overall LAS 5 year Strategy and inform other strategies including the IM&T strategy, operational strategy (including estates and logistics), workforce strategy and educational strategy.

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January 2017	0.7	Commissioner stakeholders, Chair of London Integrated Urgent Care, Medical Directorate, Clinical Leads for LAS, Chief Quality Officer (LAS), Patients Forum	Updated to incorporate feedback
December 2016	0.6	Final Draft circulated	To be taken to Trust Board in January for final sign off after further consultation and circulation with Commissioners and Stakeholders.
29 November 2016	0.5	LAS Trust Board and Executive Leadership Team	Minor amendments based on feedback
November 2016		CEO Road-shows - Strategy overview presented	Feedback received from LAS frontline and support staff and amendments made
October 2016	0.4	LAS CEO, Director of Performance and Chair	Numerous minor changes suggested and amendments made
September 2016	0.3	STP, NHS England London Region	Alignment of STP strategies with LAS clinical strategy
28 June 2016	0.2	LAS Trust Board Strategy Workshop	Feedback from Trust Board on overall strategy and confirmation about future role in Urgent Care and NHS111
17 June 2016	0.2	LAS Demand Management Workshop	Feedback from Stakeholders and Commissioners on next 5 years
11 May 2016	0.1	Stakeholder and Commissioner Strategy meeting	Feedback from Stakeholders and Commissioners on next 5 years
May 2016	0.1	Medical Directorate leads for areas	Feedback from medical directorate leads on plans for next 5 years

***Version Control Note:** All documents in development are indicated by minor versions i.e. 0.1; 0.2 etc. The first version of a document to be approved for release is given major version 1.0. Upon review the first version of a revised document is given the designation 1.1, the second 1.2 etc. until

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Executive Summary

The future system of integrated urgent and emergency care requires a radically different ambulance service which places a clear emphasis on assessment and treatment at scene and in community settings, with transport to alternative care settings where required to access established pathways of care. Transport to hospital should no longer be the default option but used for those patients who require the assessment and management skills available within an Emergency Department or an alternative healthcare centre. To deliver this clinical strategy LAS must be fully integrated with all 5 Urgent and Emergency Care Networks and Sustainability and Transformation Plans (STPs) to ensure a consistent response across London. It is recognised that whilst some healthcare pathways will be suitable to be adopted across London there will be an increasing expectation of local responsiveness and delivery of specific pathways which LAS is committed to supporting. To achieve this LAS will work closely with Clinical Commissioning Groups (CCGs).

New models of care for LAS require flexible, inter-disciplinary working across organisational boundaries with enhanced educational programmes and workforce development to support this. Electronic care records, appropriate integration of records and the standardisation of care plans must be developed and implemented.

We are committed to working with Healthwatch, the Patients' forum and voluntary sector organisations, to ensure that our services are responsive to patients' needs and that patients are always at the centre of our transformation into an urgent and emergency care provider.

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Introduction

London Ambulance Service has the aim commitment and expertise to be the provider of emergency and urgent care, with an integral role in the development and delivery of NHS 111, for patients in London.

In order to deliver this London Ambulance Service staff will be supported and trained to build its capability for the consistent delivery of high quality evidence based care for our patients. This will be underpinned by robust clinical governance and an improved educational and training plan which will embed learning and professionalism. We will listen to, and act upon, feedback from patients, staff, user groups and stakeholders to improve patient experience and outcomes.

This clinical strategy will describe the overarching clinical leadership, accountability, responsibility and behaviours required to deliver clinical excellence in a changing NHS. It provides the framework against which developments in clinical practice will be made, and against which we will measure progress.

Our Purpose

We are here to care for people in London - saving lives, providing care; and making sure they get the help they need

Our Values

In everything we do we will provide:

Care: Helping people when they need us; treating people with compassion, dignity and respect; having pride in our work and our organisation.

Clinical Excellence: Giving our patients the best possible care; leading and sharing best clinical practice; using staff and patient feedback and experience to improve our care.

Commitment: Setting high standards and delivering against them; supporting our staff to grow, develop and thrive; Learning and growing to deliver continual improvement.



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Context

The London Ambulance Service is the busiest ambulance service in the UK, responding to over 1.7 million calls a year. We are the only pan-London healthcare provider, providing urgent and emergency services for people in London. Commissioned by 32 CCGs and NHS England (London) for our specialist services, we also provide a patient transport service, non-emergency transport service, NHS 111, and neonatal transport services.

UK Ambulance Services have delivered significant improvement to the standard of clinical care and services to patients over recent years despite demand increasing year on year. Patient experiences of 999 emergency services are consistently positive with patients having a high level of trust and confidence in the clinicians who attend them. Ambulance clinicians continue to develop from their historical role of delivering first aid and transportation to hospitals, towards a greater emphasis on decision-making, diagnosis, treatment and referral. The NHS Five Year Forward View (5YFV) recognised this development in clinical capability and explains the need to redesign urgent and emergency care services in England for people of all ages with physical and mental health problems by improving out-of-hospital services so that we deliver more care closer to home and reduce unnecessary hospital attendances and admissions. The overarching urgent and emergency care vision is:

- *For adults and children with urgent care needs, we should provide a highly responsive service that delivers care as close to home as possible, minimising disruption and inconvenience for patients, carers and families*
- *For those people with more serious or life-threatening emergency care needs, we should ensure they are treated at the scene and then in centres with the right expertise and facilities to maximise the prospects of survival and good recovery.*

The FYFV identified five key changes which are needed in order to deliver an improved system of urgent and emergency services and which for London Ambulance Service will form the foundation for clinical development over the next five years.

These are:

- Providing better support for people and their families to self-care or care for their dependants.
- Helping people who need urgent care to get the right advice in the right facilities, first time.
- Providing responsive, urgent physical and mental health services outside of hospital every day of the week, so people no longer choose to queue in hospital emergency departments.
- Ensuring that adults and children with more serious or life threatening emergency needs receive treatment in centres with the right facilities, processes and expertise in order to maximise their chances of survival and a good recovery.
- Ensuring parity of esteem for all patients.
- Connecting all urgent and emergency care services together so the overall physical and mental health and social care system becomes more than just the sum of its parts and in doing so creating a highly effective, coordinated system of urgent and emergency care.

To deliver this strategy London Ambulance Service will continue to develop a professional multi-disciplinary workforce with enhanced clinical capabilities, decision making skills and leadership who are able to work as an integral part of the wider London healthcare system.

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'High Quality Care for All' remains the cornerstone with the three key dimensions of quality

- Safety
- Effectiveness
- Patient Experience

This clinical strategy echoes these quality ambitions in the pursuit of continued quality improvement, and supports the domains in the regulatory framework provided by the Care Quality Commission (CQC).

Recent NHS guidance and publications emphasise the delivery of clinical quality and LAS has a significant role to play, working with partner agencies, to ensure London delivers on the recommendations. The following documents have been considered in developing the clinical strategy.

- The NHS constitution – The NHS belongs to us all. www.gov.uk. July 2015
- Taking Healthcare to the Patient: Transforming NHS Ambulance Services – *Department of Health* – 2005
- Taking Healthcare to the Patient 2 – A review of 6 years' progress. *Association of Ambulance Chief Executives*. 2011.
- High Quality Care for All - *Department of Health* – 2008
- Transforming urgent and emergency care services in England: Urgent & Emergency Care Review Phase 1 Report – *NHS England*. November 2013
- Five Year Forward View – *NHS England*. October 2014
- Safer, faster, better: good practice in delivering urgent and emergency care – *Emergency Care Improvement Programme*. August 2015
- Integrated Urgent Care Commissioning Standards – *NHS England*. September 2015
- Clinical models for ambulance services – *NHS England*. November 2015
- Improving referral pathways between Urgent & Emergency services in England – *NHS England*. November 2015
- Vision for the ambulance service: 2020 and beyond - *Association of Ambulance Chief Executives (AACE)* – September 2015
- NHS Ambulance Services - Leading the way to care – *AACE* – October 2015
- Effective regulation and CQC registration standards
- National clinical strategies for major trauma, stroke and cardiac arrest survival

Scope

The strategy will describe the overarching clinical leadership and responsibility and professional behaviours required to deliver clinical excellence. In delivering the clinical strategy, the LAS will seek to engage with and involve staff, patients, carers, Healthwatch, Patient's Forum and the public to promote the delivery of a seamless professional service across organisational boundaries.

The clinical strategy should be considered alongside both the education and development and clinical audit and research strategies.

To deliver on the clinical strategy key enablers will be the information technology, fleet and logistics, estates workforce and operations strategies. The operational and clinical delivery model will support the delivery of the strategy and the LAS annual business plan will provide the measures by which the Trust can monitor its progress.

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Accountability and Responsibility

To ensure that patients receive the highest standards of clinical care at the right place, at the right time, by the right clinicians there will be clear accountability and responsibility for all clinical, support and managerial staff.

Every clinician is responsible for:

- Delivering the highest quality of clinical care
- Enhancing and influencing the level of care that the Trust provides
- Engaging with supervision and education and accessing leadership support where needed
- Working collaboratively with colleagues as a team to deliver high quality care for every patient
- Ensure all incidents are reported in an open and transparent way

Clinical Managers are responsible for:

- Providing clinical support to all clinicians and seeking guidance where necessary
- The quality of the care delivered to patients by the clinicians for whom they have responsibility, incorporating leadership support and supervision
- Putting the patient first in their individual and managerial decision making
- Ensuring that all staff are adequately trained
- Ensuring that incidents are investigated and learning is shared and embedded

The Trust is responsible for:

- Promoting professionalism, ownership and clinical leadership throughout the workforce
- Ensuring delivery of other strategies which support and enable the delivery of the Clinical Strategy
- Delivery of continued excellence in research, access to evidence based clinical guidance, audit of practice and availability of the most up to date clinical equipment
- Ensuring that resources are adequate to provide the highest standard of clinical care

The Chief Executive Officer is the Accountable Officer for quality for the Trust. The executive Medical Director and Chief Quality Officer are responsible and accountable for the delivery of the strategy.

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Urgent Care

LAS will provide highly responsive urgent care services outside of hospital so patients with urgent care needs receive the right care and advice in the right facility, first time.

We recognise that the public and NHS expectations of the Ambulance Service have changed considerably and that urgent and unscheduled care now makes up the majority of ambulance service workload. Ambulance services need to work in partnership with other community health care and social care providers, and broaden the workforce, to help deliver a consistent 24/7 urgent care service. LAS aims to be an integral community based urgent treatment provider rather than a disposition and transportation service by developing the workforce. To deliver this the LAS will enhance the clinical skills of paramedics and other ambulance clinicians and widen the workforce to include a range of suitably skilled healthcare professionals including nurses. In addition LAS will provide suitable transport with appropriately trained clinicians for those patients who do not require the clinical skills of a front-line emergency ambulance e.g. palliative care and mental health patients. This will include expanding our cohort of mental health nurses.

A number of models across the ambulance services have been developed that have extended the clinical assessment, diagnostic and treatment skills of ambulance clinicians. These enable ambulance clinicians to manage lower acuity injuries (e.g. wound management) and non-life threatening illness e.g. urinary tract infection at home in order to avoid the attendance at emergency departments and hospital admissions. LAS will increase the number of clinicians with an enhanced scope of practice, by providing appropriate education and training, to support the treatment and referral of lower acuity conditions.

Whilst we recognise that there are differences in locally-commissioned services, we will use our influence as a pan-London NHS Trust to ensure that there is an agreed set of minimum standards for appropriate care pathways across London. By working collaboratively with Clinical Commissioning Groups LAS can influence the development and utilisation of appropriate care pathways based on patient need e.g. patients at the end-of-life, patients who have fallen, patients with mental health needs and patients with minor illnesses and injuries.

Minor illness and injury

Minor illness and injury make up an increasing component of our workload as patients are unclear where to access healthcare. All too often, limited access to appropriate care pathways means that these patients are conveyed to an Emergency Department when they could be guided towards self-care or community resources. However, it is important to recognise that seemingly minor signs and symptoms can mask significant underlying illness, and that simple skin wounds need comprehensive assessment to exclude underlying tendon or neurovascular injury.

We will:

- Provide additional education and training in the assessment and management of urgent care conditions to increase the range of patients that can be managed out of hospital where appropriate
- Broaden the workforce to utilise allied health care professionals (AHPs), nurses and other professional groups e.g. health and social care with appropriate core education and skills to support the delivery of care by LAS clinicians nearer home

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- Recruit and train specialist clinicians in urgent care with extended clinical assessment, diagnostic and treatment skills
- Provide additional training for clinicians to develop an enhanced scope of practice to initiate management, support self-care and / or refer appropriately for on-going assessment and care
- Develop an Advanced Practitioner Urgent Care role who will provide education and support to the LAS clinicians and ensure LAS is integrated with local health services and out-of-hours providers to develop pathways
- Work with local providers and commissioners to establish safe, effective and accessible pathways for patients which are consistent across London and to improve access to in- and out-of-hours primary care, minor injuries units and urgent care centres
- Through digital technology ensure that clinicians have access to summary care records and special patient notes to inform the decisions they are making about the care provided for patients accessing urgent care
- Increase the availability of decision-support tools such as early-warning score systems and triage tools and red-flag 'check-lists' to aid accurate assessment and decision making through technology
- Provide additional training and support for the LAS 111 clinicians to ensure we are providing high quality advice for patients and assist in training for other London NHS 111 providers
- Work closely with Commissioners and to improve the flow of patients between 999 and NHS 111 to ensure that ambulance clinicians can access GP support and social care – this would be achieved through ease of access to the Integrated Clinical Advice Service (Clinical Hub) and an expanded Directory of Service
- Further develop the “Hear and Treat” Service to increase the scope of clinical telephone advice utilising telemedicine, Tele-health and Skype
- Develop the technology to ensure seamless transfer of calls to NHS 111 and Integrated Clinical Advice Service (Clinical Hub)
- Work closely with NHS 111 to ensure ambulance dispatch is appropriate and within the correct timeframe and that patients facing an emergency will have an ambulance dispatched without delay
- Support and assist in the development of the Integrated Clinical Advice Service (Clinical Hub) to ensure seamless transfer of care for patients requiring further care or advice
- Support the development of community care and urgent care by enabling cross-organisational working and education
- Support the reconfiguration of the ambulance fleet is appropriate to support assessment without conveyance and transportation where clinical care is not required en-route to a definitive healthcare destination
- Ensure GPs are informed about the referral, triage and dispatch processes within LAS and the skill-sets of ambulance clinicians to ensure that they are able to access the appropriate support for their patients and ease LAS to GP referral and transfer of care
- Ensure GPs and other healthcare providers receive clinical information about the care provided and advice given when their patients access emergency or urgent care via LAS 111
- Work closely with the wider healthcare system to manage patients who are high users of services

Patients with Mental Health needs

999 and NHS 111 are often the first point of care for patients experiencing a mental health crisis. We recognise the important role that we have in risk reduction, and in signposting these patients to the most appropriate point of care or service. These calls are often complex, and take time to manage well. Concomitant use of alcohol and drugs compounds the challenges faced by ambulance clinicians making a safe and reasoned assessment of the patient.

Patients in mental health crisis should have access to mental health referral assessment centres 24/7, including health-based Section 136 suite/ place of safety. These may be stand-alone facilities, or co-located with other facilities. Ambulance teams will need to access to live information about the current availability of local 136 suites and crisis houses, their contact details and information regarding the patients they can accommodate, such as children or patients with disabilities. In addition ambulance clinicians will need information about the patient's clinical condition and crisis care management.

We will:

- Work closely with patient reference groups to ensure that the care provided to patients with mental health illnesses is patient centred and appropriate
- Develop and implement appropriate emergency and urgent responses for mental health patients e.g. street triage, combined registered mental practitioner / paramedic responses
- Increase the training and support for 999 and LAS 111 call-handlers managing mental health calls
- Develop a mental health risk assessment tool based on best evidence
- Increase training for frontline and CHUB and LAS 111 clinicians in assessment of patients with mental health crises including recognition of safeguarding concerns
- Recruit additional mental health nurses to support the clinical hub hear and treat function and expand this role to include face to face assessments.
- Ensure that clinicians have access to Special Patient Notes to inform the decisions they are making about the care provided for patients
- Promote the referral of mental health patients to the mental health crisis lines to facilitate assessment and on-going care
- Provide further education for all clinicians in mental capacity assessment including deprivation of liberty guidance and application and appropriate aspects of the mental health section legislation
- Improve recognition and response to life-threatening acute behavioural disturbance, deploying Advanced Paramedic Practitioners to manage complex cases
- Improve the understanding of alcohol and recreational drug dependency and the associated physical and mental health complications
- Work closely with Commissioner's to develop alternative pathways for patients under the influence of alcohol or recreational drugs where they can be cared for in a safe and sensitive environment and all their clinical needs can be met
- Provide a pan-London coordination role for management of mental health referral assessment centres, including health-based Section 136 suite/ place of safety and in-patients beds for adults and children

- Work with local providers to establish safe, effective and accessible mental health crisis pathways for patients and agree direct access for patients who have no immediate medical need both for hear and treat and see and treat referrals
- Explore the concept of shared response models and ‘street triage’ utilising the LAS mental health practitioners
- Work with the police and social services to ensure a prompt and appropriate response for patients being taken into care
- Ensure appropriate transport is available within a clinically appropriate timeframe to convey patients with mental health illness
- Improve recognition and care of patients with dementia, learning difficulty and mental health conditions, whether or not these are the primary reason for contact with the LAS
- Work with other agencies to access the right support for our patients e.g. Samaritans and MIND
- Promote a better understanding and awareness of mental health illness both in our patients and staff and ensure we provide the necessary support for our staff

Falls and illness in Older People

NICE (2013) recognised that people over the age of 65 years have the highest risk of falling with over 50% of people aged over 80 years falling at least once per year. The aging population means that falls are one of the most common reasons for calls to the ambulance service and these patients represent a disproportionate number of acute admissions to hospitals. Falls are often an indicator of underlying complex illness, general health decline or acute illness. It is recognised that falls in older people, or patients with underlying health problems, are linked to a significant increase in morbidity and mortality, but that, with careful assessment and safety-netting, many of these patients can be managed in the community.

We will:

- Develop a bespoke multi-disciplinary response to elderly falls patients to propose to Commissioner’s including using other agencies e.g. fire brigade, voluntary services and 3rd party partners
- Enhance the competencies, education and skills needed for ambulance clinicians to assess and manage illness in older people
- Ensure that our clinicians understand and appreciate the psychosocial aspects of care of the elderly
- Ensure training is provided to overcome communication barriers for elderly patients
- Review our falls referral guidance as and when new national guidance becomes available
- Broaden the workforce to utilise AHPs, nurses and other clinical and professional groups with appropriate core education and skills to support the delivery of care by LAS clinicians nearer home
- Recruit and train specialist clinicians in falls and elderly conditions with extended clinical assessment, diagnostic and treatment skills
- Improve the recognition of significant injury (particularly to the neck and back) in the context of low-mechanism falls in older people and ensure adequate assessment of pain
- Work with local healthcare providers and commissioners to improve access to community services for falls referrals, ‘hospital-at-home’ and ‘intermediate care’, and ensure that our clinicians have the skills and support to identify which services are most appropriate for their patient

- Consider how telemedicine and Tele-health could be used to support clinical decision making
- Ensure patients with a suspected fractured neck of femur receive adequate analgesia and early conveyance to hospital
- Work with partner agencies to support their work on prevention of falls – eg installing hand rails, identifying trip hazards and alarms

Chronic illness and special patient groups

A growing number of patients with complex healthcare needs. In England, more than 15 million people have at least one long-term condition. This number is set to increase over the next ten years, with a significant increase in the number of patients with three or more conditions. London’s ethnic diversity means that there are significant numbers of patients with genetically-linked conditions such as Sickle Cell. The number of patients with very complex care needs such as cardiac-assist devices (LVAD) and children with life-limiting congenital conditions will also increase as a result of advances in healthcare.

Many of our patients have complex healthcare needs and are looked after by a range of clinicians. Hospital is not always the most appropriate place for many people. Going forward we recognise that further integration of the ambulance service with NHS 111, community health teams and social care hubs, co-located or connected virtually will become the key enabler for robust, high quality and cost effective coordination of the delivery of urgent and social care.

Access to information about on-going care is critical to providing the right care for this group of patients. Many of these patients should have their own personalised care plan to allow them to access the necessary support in the community. We recognise that many contact 999 or NHS 111 in a crisis, and that we have a responsibility to ensure that we respond appropriately and that they receive appropriate, individualised care.

We will:

- Work with patient representative groups to ensure that our response and care is appropriate to their specific needs e.g. Dementia UK, Hear Us
- Ensure that patients with long-term conditions are treated with respect and dignity and the care provided meets their specific needs
- Ensure that an appropriate ambulance resource with the right clinical equipment and clinician is available in a clinically appropriate timeframe to provide the right patient assessment and care
- Provide a robust, reproducible and accessible system of patient-specific protocols for patients with special requirements requiring a response or intervention outside the scope of standard paramedic practice
- Develop and improve access to Coordinate my Care (CMC) records, Summary Care records and Special Patient Notes, and ensure that crews have early access to information to enable them to make an informed decision about the care their patient needs
- Develop pathways for ambulance clinicians to directly access community based heart failure nurses and respiratory teams for patients with exacerbations of chronic conditions who do not require emergency conveyance to hospital

- Improve the care we provide for patients with diabetes by developing pathways for early access to specialist diabetes team advice and support and enhancing the ‘near patient diagnostics’ (ketone assay) where appropriate
- Work with hospitals, primary care providers and specialists to improve the level of information that we hold about their patients

End-of-Life Care

The ambulance service is often the first point of contact for patients nearing the end of their life. This includes planned transfers from an acute care setting to the patient’s preferred place of death; unplanned involvement following a sudden crisis, deterioration or worsening symptoms and involvement at or immediately after the patient’s death. Ambulance clinicians are often presented with situations in which they have to make decisions about starting a resuscitation attempt and whether it would be appropriate or futile. These decisions may need to be made on the basis of limited information and in the context of a distressed family.

We will:

- Improve integration with, and access to specific end of life care plans (Coordinate my Care records) so that ambulance clinicians have early access to these care plans before they arrive with the patient and to ensure an appropriate response is sent
- Ensure there is up to date and generic documentation around do not resuscitate orders / advanced care directives and when and when not to resuscitate policies
- Work closely with NHS 111, GPs and GP OOH to ensure all agencies put the best interests of the patient at the centre of all decisions made around end of life care
- Invest in education around end-of-life care, ensuring that our crews have a clear understanding of Trust policy and the legal and ethical basis of decisions made in these circumstances, and that crews understand how and when to use prescribed anticipatory care medications
- Develop a specialist role for end of life care clinicians
- Have systems in place for crews to obtain immediate support in making these complex decisions
- Work with local healthcare providers, palliative care services, hospices and commissioners to improve access to services for patients who are dying, 24 hours a day without the need to attend the Emergency Department
- Commission a bespoke transport and booking process to ensure timely discharge or transfer for patients who are at the end of their life
- Continue to work with CMC to improve the way we deliver care to patients with End-of-Life Care plans

Emergency Care

LAS will ensure that those people with more serious or life-threatening emergency care needs receive appropriate pre-hospital assessment and treatment in centres with the right facilities and clinical expertise in order to maximise the chances of survival and a good recovery.

The care of patients with life-threatening and life-changing emergencies, although relatively a smaller component of our workload by volume, remains a core priority for the LAS.

The following principles are key to reducing death and long term disability:

- Rapid recognition of critical illness at the point of first contact with 999 or NHS 111
- Timely response by appropriately trained and skilled clinicians
- Prioritisation of lifesaving interventions over non-essential activities
- Support, where needed, by clinicians with enhanced skills and additional experience
- Minimising time spent on-scene for time-dependent clinical conditions
- Transport to definitive care, with a pre-alert call to activate an appropriate response
- Direct transfer to tertiary care centres for specific conditions, including stroke, heart attack and major trauma

Stroke

Stroke remains a significant cause of morbidity and mortality across the UK, accounting for 11% of all deaths and affecting 230 people per 100 000. London has a world-class stroke service in which all patients with a new-onset stroke have direct access to hyperacute care, 24 hours a day. The LAS has been an integral part of the London Stroke System since its development and continues to be involved in the evolution of the network. We convey approximately 1000 patients directly to a hyperacute stroke unit every month. Over the last year, the LAS has been involved in the review of national clinical guidelines for Stroke in Adults, and the development of guidelines for stroke in children, hosted by the Royal Colleges of Physicians and of paediatrics and Child Health, respectively.

We will:

- Ensure early identification of a stroke by call handlers in 999 and LAS 111 including those with atypical presentation e.g. speech deficit or loss of balance
- Revise guidance to our EOC staff and clinicians on the recognition of stroke in children, and improve access to specialist care for children suspected of having a stroke
- Ensure that the right resource is dispatched within an appropriate timeframe for patients presenting with symptoms of a stroke
- Continually seek to reduce the time spent on-scene and increase the number of patients arriving at a HASU within 60 minutes of the first 999 / NHS 111 call
- Work with HASUs to minimise the 'door to needle' time for patients undergoing thrombolysis
- Work with the London HASUs to establish network arrangements for interventional neuroradiology and thrombectomy, and explore ways of identifying the patients that are most likely to benefit from this procedure
- Support local and national initiatives aimed at increasing awareness of stroke across all age groups

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Survival from Cardiac Arrest

Ensuring that patients who suffer from a cardiac arrest get the right treatment quickly is vital for their survival and longer term clinical and quality of life outcomes. Over the last decade, the LAS has seen a steady rise in survival from out-of-hospital cardiac arrest, consistently reporting some of the best outcomes amongst UK ambulance services. We recognise that improving the care that patients in cardiac arrest get before the ambulance arrives is central to improving survival. Over the last year we have worked closely with the Metropolitan Police and the London Fire Brigade to develop co-responder schemes, and have continued our development of Community First Responder networks around London to ensure early defibrillation.

We will:

- Work with the community and partner agencies to increase the number of Public Access Defibrillators across London, targeting schools, sports clubs, transport hubs, shopping centres, large businesses and industrial complexes
- Increase our collaboration with our blue-light partners to provide a rapid response to patients in cardiac arrest
- Continue to improve outcomes for patients in cardiac arrest we will increase the number of public access defibrillators so earlier access to defibrillation is facilitated
- Use technology, such as the Good-Sam App and AED locators to improve community response to cardiac arrest
- Enhance the training of call handlers in 999 and LAS 111 to recognise peri-arrest scenarios such as inadequate breathing to ensure early despatch of appropriate resources
- Review the way we train our staff in cardiac arrest management across all age-groups, focussing on the importance of recognising, and, wherever possible, addressing the underlying cause of the cardiac arrest within the first few minutes of care
- Continually review the management of cardiac arrests to ensure that care is providing the best outcomes and introduce new evidence based guidelines as appropriate
- Support the development of a structured 'hot debrief' to review the care provided to the patient and support the staff involved
- Introduce annual ALS for all registered clinicians and assessment of airway management competencies for all clinicians
- Continue to roll-out mechanical chest compression devices to support the management of cardiac arrest on scene and en route to hospital where appropriate, and increase the role of Clinical Team Leaders in the management of these patients
- Continue to develop the skills of the Advanced Paramedic Practitioners (Critical Care) to manage complex cardiac arrests including post return of spontaneous circulation (ROSC) care
- Formalise the use of cardiac ultrasound for appropriate clinicians to guide decision-making in cardiac arrest management
- Work with Heart Attack Centres to improve pathways for all patients with return of spontaneous circulation following unexpected cardiac arrest
- Participate in further high quality pre-hospital care research, for example multi-centre randomised control trials to establish to role of adrenaline in the management of pre-hospital cardiac arrest
- Improve the way that we review cardiac arrest care and increase the use of defibrillator downloads to identify areas of good practice and areas for improvement

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Heart Attacks and Cardiac Arrhythmias

The LAS is committed to ensuring that patients suffering a heart attack (STEMI and non-STEMI) are recognised promptly and treated with all clinically appropriate elements of the evidence based care bundles before being transferred for assessment in heart attack centre without delay. Currently LAS delivers this care to a high standard with the exception of being able to evidence that the pain relief element set out in the national care bundle is administered and recorded effectively.

LAS has agreed pathways for patients with cardiac arrhythmias which allows direct access for some conditions – this has shown improved outcome for these patients and further collaboration is required.

We will:

- Work closely with the London cardiovascular networks to continually review services and improve timely access to specialist facilities for our patients
- Reduce the time spent on scene for patients with a suspected STEMI or acute coronary syndrome
- Improve the management of pain, and associated documentation, in patients with a suspected STEMI and acute coronary syndrome
- Develop, in conjunction with CARU, a structured STEMI and arrhythmia feedback process so clinicians know the outcomes for their patients
- Continue to improve and audit the outcome for patients conveyed to specialist centres with other cardiac conditions e.g. cardiac arrhythmia, Kawasaki disease, Marfan's syndrome

Vascular Disease

As with many life-threatening emergencies, timely delivery of definitive care in a specialist centre is vital in reducing mortality from vascular emergencies such as a ruptured abdominal aortic aneurysm (AAA) or vascular compromise in limbs. It is important that the services required to treat these patients are located in centres that have the skill and expertise and are accessible to the ambulance service directly.

There is an evolving network of vascular centres in London, in which surgical expertise is available 24/7. In partnership with the St George's Vascular Institute, LAS crews are using a smartphone APP to gather data on patients who might have a leaking AAA, to understand the signs and symptoms that are most predictive of an immediate surgical need.

We will:

- Support the transfer of patients with a suspected leaking aortic aneurysm from local hospitals to tertiary facilities, providing a high priority response for the most at-risk patients
- Audit our care and decision-making across specific groups of patients as appropriate
- Reduce the time spent on scene for patients with a suspected vascular emergency
- Work with vascular centres to study and understand how best to recognise and triage patients with a possible leaking aneurysm, shortening the time to definitive care
- Continue to work with NHS England (London) to develop vascular network and bypass arrangements for both aortic aneurysms and other vascular emergencies e.g. acute vascular compromise in limbs

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Major Trauma

London provides a world-class major trauma system that continues to see a steady increase in the number of 'unexpected survivors'. Early identification of these patients and direct transfer to Major Trauma Centres both play a very important role in improving survival and minimising long-term disability.

Over the past five years it has become clear that the face of major trauma has changed. Whilst sadly, penetrating injury in young people is still common, the major trauma population in the UK is becoming more elderly. The current average age of major trauma cases is 60, and it is predicted that within the next few years the over 75's will be the single largest group suffering major trauma. The predominant mechanism is falls of less than 2 metres.¹

We will:

- Continue our work with the four London Trauma Networks to develop a world-class major trauma service for London
- Enhance the education for call handlers in 999 and LAS 111 to ensure that they have the underpinning knowledge to recognise mechanisms which may indicate a more serious injury
- Use video technology on the 999 CHUB to help in the remote triage and assessment of trauma patients
- Ensure that our clinicians recognise the changing face of major trauma, and have the necessary education and skills to adequately assess elderly patients following relatively low-mechanism falls to reliably exclude major trauma
- Prioritise the importance of recognition and management of neck and back trauma in older people.
- Ensure ambulance clinicians have the correct equipment to provide appropriate care at the scene and en-route to definitive care
- Ensure pain is assessed and managed adequately
- Audit our care and decision-making across specific groups of patients as appropriate and provide supportive feedback as necessary
- Reduce the time spent on scene for patients with penetrating and blunt trauma
- Deploy, where appropriate, Advanced Paramedic Practitioners to support crews in managing complex scenes and patients, and ensure that the APP skill-set meets the needs of this group of patients
- Continue our work with London's Air Ambulance, targeting a physician-paramedic team to the most seriously injured patients.
- Continue to work with the Burns network to ensure timely transfer of patients with serious burns to a specialist unit

¹ Kehoe A *et al* **The Changing Face of Major Trauma in the UK** *Emerg Med J* 2015;**32**:911-915

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Sepsis

The total number of patients developing sepsis within the UK every year is now over 100,000. Approximately 37,000 of these patients will die, with survivors suffering long term physical and psychological problems, resulting in significantly reduced quality of life. Sepsis is responsible for more deaths annually than myocardial infarction, stroke, chronic obstructive pulmonary disease (COPD) or lung cancer.

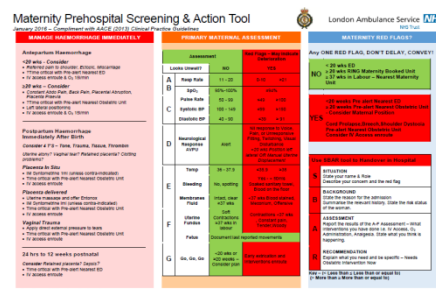
Sepsis is a time-critical condition that can lead to organ damage, multi-organ failure, septic shock and eventually death. It is caused by the body's immune response to a bacterial or fungal infection commonly originating from the urinary tract, respiratory tract or skin. Sepsis, unlike many of the other big killers, is not age or gender specific and can affect anyone, at any time. There are, however, groups of patients who are more susceptible. The LAS has an important role to play in recognising the signs and symptoms of potential sepsis both at call handling (999 and 111) and during the face-to-face assessment is important for ambulance. Early recognition of potential sepsis and prompt management 'saves' lives and improves the outcome for patients long-term.

We will:

- Continue to improve the recognition of potential sepsis at call-handling (999 and LAS 111) to ensure early despatch of an appropriate vehicle to convey the patient to definitive care
- Ensure that the early recognition, immediate management and timely transfer of patients with suspected severe sepsis
- Ensure the different presentation of children, elderly or immuno-suppressed patients with sepsis is understood
- Use screening tools to improve recognition of sepsis and differentiate between simple sepsis and severe sepsis
- Reduce the time spent on scene for patients with potential sepsis
- Audit our care and decision-making across specific groups of patients as appropriate and provide supportive feedback as necessary
- Explore the use of point-of-care testing by appropriate clinicians to guide management of patients with simple sepsis, administering antibiotics where indicated, and referring the patient to appropriate community services

Maternity Care

The LAS recognises that, for the vast majority of patients, pregnancy and birth are normal life events, are normal events, however, occasionally emergencies can occur when birth occurs unexpectedly. Obstetric emergencies are high-risk for the mother and the infant, and immediate action may be needed to prevent catastrophe. LAS is the only Ambulance Service who employs a Consultant Midwife and is therefore in a unique position to influence the care provided to pregnant women and lead the improvement in care provided. LAS clinicians have a pre-hospital screening and action tool to guide crews through assessing risk and managing less common presentations



We will:

- Ensure that staff working in the LAS control room / LAS 111 call centres have robust and reproducible guidance on screening incoming calls to pregnant women, enabling accurate triage and decision-making
- Prioritise education in recognition and management maternity and neonatal emergencies, ensuring that our clinicians have the necessary skills and support to manage the patient
- Undertake regular simulation workshops to increase competence and confidence in the management of more difficult pregnancy presentations
- Reduce the time spent on scene for patients with time-critical pregnancy complications
- Audit our care and decision-making across all groups of patients and provide supportive feedback as necessary
- Use technology opportunities to have a mobile APP to alert Community midwives to an incident requiring their assistance earlier
- Employ midwives in the Clinical Hub and on the front-line to strengthen screening, advice and referral processes for mothers, and provide immediate support to crews dealing with complicated births
- Work closely with the London Heads of Midwifery to develop and refine referral and transfer processes for pregnant women in labour
- Work with the Early Pregnancy Units to agree criteria for direct referral without the need to convey to Emergency Departments

Paediatrics

The Healthy London Partnership children and young people's transformation programme is designing easier access to more streamlined and reliable care with the aim of reducing variation across London. The scale of the challenge is significant and starts from evidence of poor outcomes in some areas of care for children and young people compared to other developed countries. The programme is delivering projects which can be most efficiently done once on behalf of 32 CCGs so offer a tremendous opportunity for LAS to engage and improve the quality of service and care for children across London.

We will:

- Promote appropriate pathways for children and young people to ensure they receive care in the right healthcare place, closer to home where appropriate, including those with mental health illness
- Increase the education around paediatric assessment and management
- Promote the early recognition, immediate management and timely transfer of children with suspected sepsis remains a priority for all our staff
- Ensure that all vulnerable children, including those with safeguarding concerns, subject to radicalisation or female genital mutilation, are recognised and managed appropriately
- Ensure that child deaths attended by LAS are reviewed and lessons learnt
- Explore the opportunities of working with a health visitor to oversee the patients aged 5 years and under who are not conveyed to a healthcare setting by LAS

Emergency Preparedness, Resilience and Response

The LAS, as a Category 1 responder, has a statutory obligation to be prepared to deal with serious and major incidents of all types and sizes.

Our Incident Response Plan has been prepared in light of guidance from the Department of Health, Home Office and builds on the Civil Contingencies Act 2004 guidance, Lessons identified by the LAS, Coroner's Inquests and subsequent Prevention of Future Death reports, and in particular the findings of the inquest into the events of the London Bombings on the 7th July 2005.

The Trust is committed to continued engagement with its partner agencies and with the Local and Regional Resilience Forums to ensure joined up multi-agency emergency preparedness and resilience which ensures a rapid response, with appropriately skilled clinicians to ensure the best clinical outcomes for the most patients affected.

We will:

- Ensure that all staff and managers have the necessary education, training, skills and guidance to enable them to manage and lead a response to complex, significant and major incidents
- Ensure that there is an adequate, deployable stock of appropriate medical equipment and consumables to support a response to several simultaneous major incidents around London
- Ensure that the education and skill-set of HART paramedics is compliant with national specifications, and that the clinical aspect of their training is given a high priority
- Ensure that HART and Tactical Response Unit paramedics are exposed to routine patient care as part of their rota to maintain skills
- Have 24/7 medical teams to support the LAS at major incidents (MERIT) and ensure that the training of these clinicians is appropriate to the role
- Develop and test the roles of Medical Advisor and Casualty Clearing Medical Lead, and the roles for Advanced Paramedic Practitioners in major incidents
- Produce clinical guidelines for use in major incidents to ensure that the level of care is appropriate for the setting and resources available
- Work closely with London's Trauma Networks to develop protocols and policies for managing large numbers of critically ill, injured or burned patients
- Exercise our plans regularly, and ensure that clinical care is adequately tested and reviewed.
- Ensure that all regulatory requirements are met
- Ensure that learning from events which happen elsewhere in the world is reviewed and clinical plans are amended accordingly

Major Events

As a thriving capital city and the seat of Government, London has a wide range of large public events – both planned and unplanned. LAS needs to work with event organisers to ensure that these are run safely and provide high quality, on-site care to minimise the impact on primary and secondary healthcare providers. In addition there must be as little impact as possible on people in the surrounding areas and the LAS core business. LAS has significant expertise in delivering medical care in partnership with the voluntary sector.

We will:

- Continually review the medical care that we deliver at large public events, ensuring that our response is appropriate to the event and perceived risk
- Ensure clinicians deployed are adequately trained to assess and manage patients specific to the event they are covering e.g endurance events
- Develop the role of enhanced care support to large events with the aims of reducing death and disability, and reducing the impact of minor illness and injury, and intoxication on neighbouring hospitals

Promotion of Public Health; Prevention of Premature Death and Disability

The LAS has an important role to play in influencing and promoting the public health agenda. Our clinicians are routinely in situations and in people's homes where they can identify healthcare concerns and social needs such as a lack of heating, low-level mental illness and vulnerability.

A significant underlying medical condition or risk factor (such as high blood sugar or atrial fibrillation) may be identified during the assessment of apparently minor illness or injury, presenting an opportunity for measures to be taken to prevent deterioration.

The number of patient contacts LAS has provides an unrivalled opportunity to play a more pro-active role in public health issues such as smoking cessation, mental health, drug and alcohol dependency and asthma awareness

We will:

- Support patients to self-care where clinically appropriate
- Develop and enhance referral processes for patients with undiagnosed hypertension, atrial fibrillation or raised blood sugar
- Play an active role in illness and injury prevention, such as smoking cessation, asthma management, cycle safety
- Work closely with local healthcare providers and commissioners to manage high service users and frequent callers
- Work with local authorities, healthcare providers and charities to provide safe facilities for management of intoxicated patients at peak times, improving safety and minimising impact on emergency departments
- Use different methodology to increase awareness of current public health issues
- Support and expand the work undertaken by the public education team to educate children and youths about the ambulance service, career opportunities, drugs and gangs
- Work with schools and colleges to increase local recruitment, by offering observer and 'taster' opportunities, which will ensure better representation of the population we care for
- Analyse trends in call volumes to identify changes in illness and demographics – dangerous drug use in night clubs or spikes in call volumes to particular long-term care facilities, for example – and work with the local health economy to manage associated risks
- Protect and promote the welfare of our own staff, recognising that the work we do has both physical and mental impacts
- Develop and strengthen our own staff support services and encourage the involvement of agencies such as the Mind Blue Light Programme
- Encourage and support a healthy lifestyle at work, such as through the 'cycle to work' scheme

Supporting Clinical Excellence - Technology

LAS will undergo a transformation in digital capability to support interoperability within the healthcare system

Clinically led improvement, enabled by new technology, involves transforming the delivery of health care and our management of population health. LAS is committed to making this clinical transformation and associated investment and ensuring technological development is centre stage.

Effective emergency and urgent care services will be supported by the immediate availability of relevant patient information. As a pan-London organisation LAS needs to undergo a transformation in digital capability. Information technology is a significant enabler to better patient care and governance and supply-chain management. It should be recognised that this digital transformation is dependent on broader system-wide changes which includes records being available electronically and joined up to other systems and ensuring that patients have up-to-date care or crisis plans (SCR / SPN / CMC).

In order to deliver excellent clinical care LAS must continue to provide a timely and appropriate and consistent clinical response to patients who access our service for emergency or urgent care needs. This requires a responsive clinical model which ensures the right clinician, with the right clinical skills and equipment is despatched to the right patient via the right means e.g. ambulance, motorbike, car. The equipment and drugs required to assess and treat patients should be vehicle based to ensure consistency and assurance. The range of equipment and drugs should be fit-for-purpose, cost effective and there should be clear evidence and / or national guidance to support their use. Integrity of external and internal supply chains is important for delivery.

We will:

- Migrate from paper to a digital clinical records system encompassing an electronic patient report form, access to NHS spine, summary care records, special patient notes or CMC and allow seamless interoperability with the Integrated Clinical Advice Service (Clinical Hub)
- Roll out hand-held electronic devices to improve communications, compliance with audit, completion of e-learning and access to the mobile Directory of Service
- Engage with technologies that provide tools for health care professionals. These include decision support, the capacity to access other professionals' expertise, tools to prioritise and manage their clinical workload and tools to identify the patients at greatest risk.
- Support the development of patient-facing technologies that provide them with opportunities to manage their health and engage with health care providers. These include wearable devices, apps, online communities and patient portals
- Explore the opportunities for expansion of digital technology use within the control room e.g. electronic booking of non-emergency ambulances for Healthcare professionals, telemedicine and text pre-arrival instructions
- Use logistic and pharmacy specialists to support the transformation of models of clinical care
- Use technology to support education and development e.g. webinars, podcasts
- Use technology to provide real-time tracking and traceability of medicines and improve security

Clinical Audit and Research

Clinical audit is a quality improvement process that systematically reviews the delivery of care and recommends changes to practice where the need is identified. LAS will continue to use a programme of clinical audit to ensure the highest standard of care, improve clinical quality and patient outcomes and minimise clinical risk. Our clinical audit programme will focus on areas of care that are important to us as a Trust, our staff and our patients. It will measure quality in a number of ways including adherence to clinical guidelines; health outcomes; appropriate transfer of care to another health care provider; speed of response, and patient satisfaction.

The London Ambulance Service is proud to be a leading pre-hospital research organisation. The large and diverse population we serve, with a variety of health needs, affords LAS the ability to have a wide ranging research portfolio. By developing and hosting research studies we contribute to an evidence base that informs and improves emergency medical care and outcomes in the UK and worldwide.

We will:

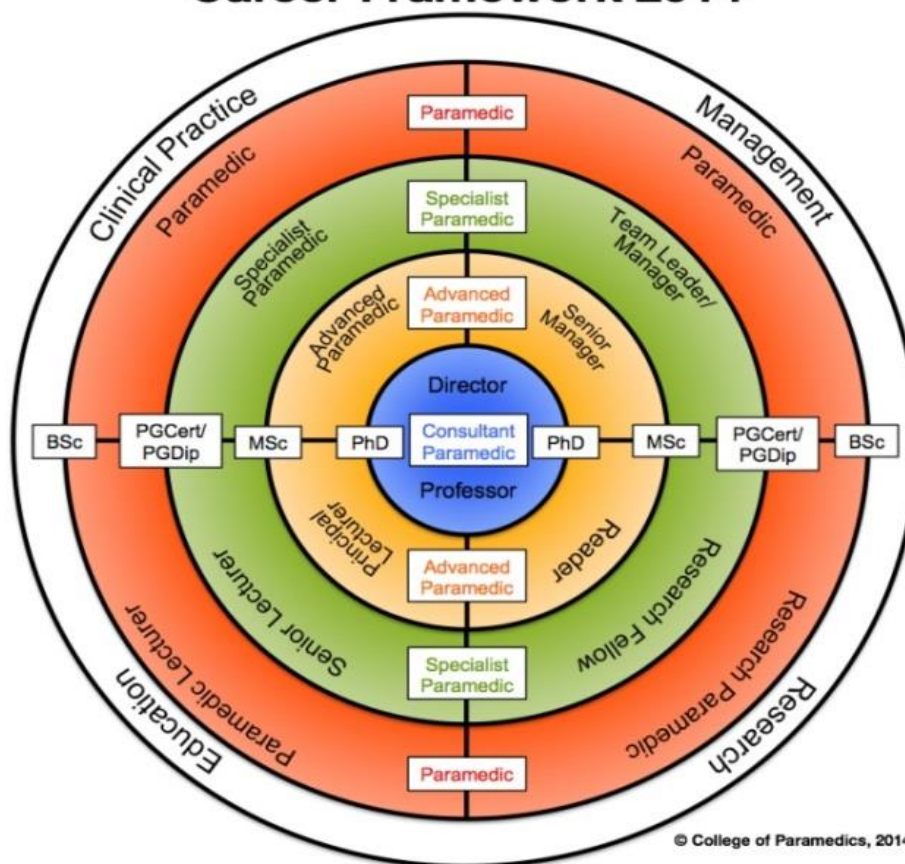
- Create an environment where staff are committed to develop and change practice and systems in light of research, clinical audit, good practice and evidence based clinical care
- Use Clinical Performance Indicators (CPIs) to audit practice in specific areas of care, particularly those that pose a significant clinical risk and minimise this risk by ensuring face-to-face CPI feedback
- Deliver an annual clinical audit programme facilitated by a clinical audit team that will enable contribution to national clinical quality indicators and publish an annual audit report.
- Work with NHS England to rewrite the Ambulance Clinical Quality Indicators to establish outcome based indicators which promotes reliable comparison across all Ambulance Trusts
- Use audit outcomes to enhance clinical care, using national, local and Trust benchmark data to identify areas for improvement and future educational packages
- Continuously audit re-contact from patients within 24 hours who were discharged from Las care following telephone or face-to-face assessment where significant deterioration has occurred to learn from the incident and reduce risk to future patients
- Continuously monitor the quality of care provided to every patient who suffers a cardiac arrest, stroke, major trauma, ST-elevation myocardial infarction
- Support information sharing agreements with other providers so patient outcomes can be shared
- Develop and promote a culture of Research and development throughout the Trust
- Develop new research in partnership with external organisations including other healthcare providers, academic institutions and commercial organisations
- Continue to demonstrate the Trust is the leading Ambulance organisation in pre-hospital research
- Lead on national and international research programmes in pre-hospital care

Clinical Career Structure

The LAS recognises the immense value of a diverse clinical workforce and the important contributions that clinicians of all grades and educational backgrounds make towards excellent patient care and clinical outcomes. We acknowledge the vital role that non-clinicians make in delivering this care be this in the in the 999 and LAS 111 control centres or in our supporting services.

Equally, we recognise that not everyone will want to follow the same career pathway, and that many of our clinicians will move from one area of development to another during their career. We will work with partners in higher education to develop a workforce that is fit for purpose, and provides a pathway from entry level to board in line with the Skills for Health and College of Paramedics Career Framework to ensure that all of our workforce has a clear career pathways and development opportunities.

College of Paramedics Career Framework 2014



9	More Senior Level / Clinical Director
8	Consultant Practitioner
7	Advanced Practitioner
6	Senior / Specialist Practitioner
5	Registered Practitioner
4	Associate / Assistant Practitioner
3	Senior Healthcare Assistant
2	Support Worker
1	Initial Entry Level

We will:

- Review the workforce skill mix to ensure that LAS has the appropriate workforce to deliver the 'Right Care at the Right Time in the Right Place'
- Develop a portfolio of clinical scope of practice for a range of clinical practitioners
- Work with Health Education England and our partner Universities to develop training programmes that will meet the future needs of the ambulance service, and to deliver exceptional practice placements for all our students
- Develop the LAS academy to broaden the training delivered to include opportunities for specialist training and higher education opportunities
- Work with London's medical schools, the Faculty of Pre-hospital Care and the intercollegiate board for Training in pre-hospital emergency medicine to develop routes for basic and speciality training
- Enter into learning agreements with partner institutions to ensure learning needs are fulfilled
- Work with other healthcare providers to provide reciprocal development opportunities
- Ensure that there is strong and visible clinical leadership, in the right numbers, across all activities of the Trust, and that Trust policy puts patient care at the centre of everything that we do. This will necessitate increasing the number of advanced paramedic practitioners and clinical team leaders
- Expand the skill-set of advanced paramedic practitioners ensuring implementation is structured, evidence-based and well governed
- Develop the role of specialist paramedics with a specific interests and knowledge
- Develop and pilot the role of urgent care clinicians to deliver hear and treat and see and treat
- Increase the clinical governance and assurance support and appoint clinical advisors in quality intelligence and safety improvement, procurement and legal services
- Support information sharing agreements with other providers so outcomes can be reviewed to inform pathway development and educational packages