London Ambulance Service
NHS Trust

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LAS context:

- The London Ambulance Service is here to care for people in London: saving lives; providing care; and making sure they get the help they need.
- We cover all of London = 32 CCG’s, 41 NHS trusts, across 86 sites.
- Estimated population of over 8.9m people.
- We employ over 4,500 staff based across more than 70 sites and ambulance stations.
How we care for the capital:

Our major service areas are:

• Call taking and clinical triage
• Hear and treat services
• 999 emergency and urgent care response – delivered using traditional and innovative means e.g. Fast Response or Cycle Response Units
• Intelligent conveyance
• Emergency Preparedness Resilience and Response (EPRR) and Blue Light collaboration

We also provide NHS111 service and are working with commissioners to move to the Integrated Urgent Care model
Demand:

An average day for us includes:

- Over 5,000 emergency calls
- Over 3,000 patients
- More than 2,200 patients taken to hospital
- Over 1,500 Cat A
- Over 1,600 Cat C
- Over 520 given telephone advice

CAD number = number of calls so far that day (resets at midnight) and can indicate how busy we are
999 Timeline:

**Call Handling**
- 999 / 112 / 911 call made.
- BT Operator;
- "Emergency which service?"
  - Ambulance
  - Police
  - Fire
  - Coastguard
- Emergency call connected to LAS Emergency Operations Centre.
- EMD: "Emergency Ambulance tell me exactly what's happened"
- EMD gains the following information;
  - Problem
  - Location
  - Phone number
  - Call triaged using MPDS
- EMD gives medical advice.
  - Pre-Arrival Instructions include;
    - Severe Haemorrhage
    - Basic airway control
    - CPR
    - Choking
    - Childbirth
    - Burns
- EMD stays on the line until help arrives, or disconnects if a non-life-threatening.
  - 2% of calls required patient and EMD to stay on the line.

**Dispatch**
- Location automatically gained if call made from a landline or mobile phone co-ordinates received. Aides a quick dispatch.
- Dispatch of ambulance resources; determined by the call type and nature of injury / illness
- Ambulance resources updated by Dispatch.
- Review of Allocation decision, sending additional resources if required
- Ambulance staff arrive on scene.
  - Further support is available from EOC Dispatch:
    - Clinical support desk
    - Locations
    - Other emergency services
    - Other agencies
How our calls are triaged:

**Category A** – Immediately Life Threatened
- R1 (8 minute response) eg: Cardiac/Respiratory Arrest or Unconscious, ineffective breathing
- R2 (8 minute response) eg: Difficulty breathing, not able to complete sentences

**Category C**
- C1 (20 minute response) eg: Sickle Cell Crisis
- C2 (30 minute response) eg: Fallen with deformed limb
- C3 (60 minute response / Hear and Treat) eg: Miscarriage, PV Bleed
- C4 (1-4 hour response / Hear and Treat) eg: Elderly faller, still on the floor with no injury
HCP referrals to us:

**Designed for clinicians**
- Enables you to triage and request the appropriate response for your patient
- The referral **should be made by a clinician** who understands the clinical scenario, who can discuss the case and negotiate a safe and appropriate response for the patient

**Key clarification points:**
- Does your patient need clinical assessment and management or just conveyance? If conveyance, consider suitable alternatives such as the Non-Emergency Transport Service or taxi
- Always consider whether the patient can make their own way or has anyone who can take them to hospital
- If you are unsure what response is required for your patient this can be discussed with our EOC/CHUB
- You will be asked to confirm location and contact details twice, it is very important that we dispatch to the correct location and can call back if the call is terminated for any reason
HCP referrals to us – high acuity calls

High acuity calls are prioritised by our EOC:

• Category A – Immediately Life Threatened is an 8 minute response with blue lights. For us, this means a patient who is critically ill (eg. life threatening/peri-arrest)
• We prioritise these calls above all other calls and **divert** resource to attend, particularly at times of peak demand. Therefore other patients may have to wait longer (eg. Elderly fallers who are still on the floor)
• At times, multiple resources may be sent to a Cat A call which means they are diverted from attending other patients
• It is dangerous to drive on blue lights – a risk for our clinicians and other road users

Consider: When to use this resource, use where needed but use with care. You can discuss with one of our clinicians on our Clinical HUB if you are not sure what response is needed for your patient
Our clinical staff:

<table>
<thead>
<tr>
<th>Role</th>
<th>Qualifications</th>
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| Paramedics                                | 3 year BSc and Registration with HCPC  
Can do full clinical assessment including ALS, perform and interpret ECGs, deliver babies, perform invasive procedures such as intubation (some) and supraglottic airways, cannulation and intraosseus access, needle cricothyroidotomy and needle chest decompression. They can give a range of medications including morphine |
| Advanced Paramedics                       | Additional masters level qualification  
Critical care expertise and complex cases end of life care/capacity cases  
More invasive procedures such as intubation, surgical cricothyroidotomy, and finger thoracostomy  
Additional medications such as midazolam, haloperidol, and ketamine |
| Emergency medical Technicians and         | Unregistered clinicians  
Usually very experienced  
Full clinical observations and can give some medications but cannot perform invasive procedures |
| Emergency Ambulance crew                  |                                                                                |
| Non emergency transport service           | Can do basic observations, use AED, can give oxygen and entonox and transfer patients in a chair or stretcher |
| Clinical hub                              | Experienced paramedics, nurses and mental health nurses providing hear and treat services, and welfare check calls for patients, as well as senior clinical advice and support for frontline staff |
24/7 Clinical support structure for operational staff:

- Clinician (Paramedic) requires information/advice/support while with a patient
  - Contacts (radio/mobile) Clinical Hub within EOC
    - CHUB staff 24/7 with experience registered clinicians
  - CHUB supported by Medical Directorate on call staff 24/7
  - On Call Medical Directorate supported by on call Senior Medical Advisor 24/7
- Gold Doctor available 24/7
Clinical career development:
NHS 111:

NHS 111 is a national service with local providers – shortly moving to the Integrated Urgent Care model

We stepped in to deliver the service for South East London CCGs:

• 28,756 calls answered by SEL service in March 2016
  • 27.8% of triaged calls were referred to a clinician.
  • 60.6% of those awaiting a call-back received call backs in less than 10 minutes.
  • 9.2 % of dispositions were ambulance dispatch
• ITK or email messaging to many urgent care services – WIC, UCC, OOH GP
• Access to the NHS spine
The 111 Assessment – NHS Pathways:

- Accredited tool
- Pathways developed and approved by all the Royal Colleges
NHS Pathways – an overview:

• Pathways assessment takes patient through matrix of questions that is responsive to the answers given
• Starts by ruling out life threatening and serious conditions before assessing for lower acuity conditions
• Continues until can no longer rule out a condition at which point it reaches a “disposition”
• Disposition = the level of clinical assessment that is required to further assess the patient within a specific timeframe
• 111 then interrogates a live directory of services which provides recommended options for further assessment/care that are open and available at the time

**Health advisors**: Non clinical staff who are highly trained on use of NHS Pathways tool and DoS

**Clinicians**: Nurses or Paramedics trained on NHS Pathways but who carry out additional clinical triage for complex cases, provide home care advice/hear and treat

**CQI**: Provides senior clinical advice, manages clinical call back queue
NHS 111 - outcomes

NHS 111 Call Volume – front end to urgent care
Patients are predominately referred to lower urgency settings

Dispositions callers
(where callers are referred to)

111

Referral

- 999 Ambulance
- A&E / UCC
- GP Out of Hours
- GP in hours
- Community service
- Dental
- Pharmacy

www.england.nhs.uk

London Ambulance Service NHS Trust
NHS 111 Post Event Message (PEM)

- Real time report of patient’s interaction with 111 sent into your clinical system
- Provides information about the 111 triage and the disposition
Demand management: Frequent Callers

The management of Frequent Callers is complex and sensitive, there are over 1,600 Frequent Callers known to LAS, generating approximately 49,500 incidents per annum. To put in place a package of care and support for the patients across London involves commitment from multi agencies and organisations within the local health and care systems.

The national definition of a Frequent Caller to the Ambulance Service defined by FreCaNN is:
- “Any one aged 18 or over who calls 5 or more times in 1 month from a private dwelling”
- “Any one aged 18 or over who calls 12 or more times over a 3 month period from a private dwelling”

Activity & demand:
• Known to the LAS there is evidence of 1,622 FCs;
• Who in turn generate an estimated 49,534 incidents per annum.

Associated issues:
• Ties up valuable Emergency and Urgent Care resource from LAS and EDs
• Estimated to result in conveyance to ED in 80% of incidents;
• Resulting in over 7,000 admissions a year with average attendance to admission rate of 18%.
Demand management: FCs activity

There are estimated to be more than 1,600 frequent callers across London, generating around:

- 50,000 incidents
- 31,000 Hear & Treat Incidents
- 9,500 See & Treat Incidents
- 9,500 See & Convey Incidents

Frequent caller activity is expected to cost the local health & social care economy circa £18million per annum.
Frequent Callers: Who are they?

No single patient profile, contributory factors

- Chronic co-morbidities
- Mental Health
- Personality Disorders
- Learning Disabilities
- Substance Abuse
- Frail / Elderly
- Homeless
- Hoax Callers
- Care system
Frequent Callers – collaborative management approach

We will work with you to:

**Raise awareness**: We know you may not always be aware about which of your patients are calling us frequently

**Alert notification**: We may alert you to our higher frequency callers local to you, to consider any interventions that can be carried out to support them locally within primary or community care

**Collaborative management**: We may suggest joining multidisciplinary meetings or Frequent Caller Forums (FCFs) that include health and social care services in order to develop a care plan for the patient

In addition, our crews on scene or in the clinical hub may contact your surgery to request information that can help with clinical decision making for these patients
Changing practice – personal experience

How have I changed my practice since working with the LAS:

Training and maintenance of skills, I have become:

• more thorough in my clinical assessment, often taking a full set of observations including respiratory rate
• proactive in developing and maintaining my acute and urgent care clinical skills

My handover and preparation for LAS and hospital admission referral is more focussed

Equipment, I have considered:

• the practice has appropriate emergency drugs and equipment
Key Messages

• Try to make the HCP call yourself wherever possible
• Make a note of the CAD number as you may need it if you call back to update us or if there are issues in the future regarding a case we have attended
• If the patient’s condition changes, call back and update us
• Be aware of use of “blue lights”
• When the crew arrive, try to make yourself available to handover clinician-to-clinician
• Try to answer calls from ambulance staff as promptly as possible
• Work with us to support frequent callers
• Share SPNs, CMC records, PSP/care plans
Our Tools and updates

We produce a variety of tools and updates to support our staff:

- **Clinical updates**: for our clinicians with articles on latest clinical topics and guidelines
- **Sepsis tool**: Clinical decision tool for assessment and management of suspected sepsis
- **Falls decision tool**
- **Maternity pre-hospital screening and action tool**
NEWS Score

<table>
<thead>
<tr>
<th>PHYSIOLOGICAL PARAMETERS</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tr>
<td>Respiration Rate</td>
<td>≤8</td>
<td>9 - 11</td>
<td>12 - 20</td>
<td>21 - 24</td>
<td>≥25</td>
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<tr>
<td>Oxygen Saturations</td>
<td>≤91</td>
<td>92 - 93</td>
<td>94 - 95</td>
<td>≥96</td>
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<td></td>
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<tr>
<td>Any Supplement Oxygen</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Temperature</td>
<td>≤35.0</td>
<td>35.1 - 36.0</td>
<td>36.1 - 38.0</td>
<td>38.1 - 39.0</td>
<td>≥39.1</td>
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<tr>
<td>Systolic BP</td>
<td>≤90</td>
<td>91 - 100</td>
<td>101 - 110</td>
<td>111 - 219</td>
<td>≥220</td>
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<td></td>
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<td>Heart Rate</td>
<td>≤40</td>
<td>41 - 50</td>
<td>51 - 90</td>
<td>91 - 110</td>
<td>111 - 130</td>
<td>≥131</td>
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<tr>
<td>Level of Consciousness</td>
<td>A</td>
<td>V, P, or U</td>
<td></td>
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</tr>
</tbody>
</table>

• Developed by RCP
• Useful for assessing acutely unwell patients
Handover to us:

Clinician handover

- Importance of clinician to clinician conversation when referring in to LAS and also when crews arrive at your surgery to assess, treat and convey your patient
- LAS clinicians will perform further assessment and procedures, they may also give treatment so it is important that you are able to give them a verbal handover when they arrive so they are fully aware of the situation, your concerns and what has been done/given prior to their arrival
Handover to us:

Calls to and from crews/EOC or CHUB

Our clinicians may contact the surgery to discuss a patient, they are NOT always trying to request a visit, sometimes we:

• need further information regarding the patients clinical/social/medication history to aid their decision making
• want to provide you with information to assist in your on going care of the patient
• need to sense check a patients management plan with someone who has more knowledge of the patient’s clinical background

Clinician on scene with a patient:

• The clinician on scene will usually not leave the patient until they have spoken to you
• We have had instances where a crew is waiting some hours for a GP to call them back

This means they are not available to attend other sick patients who then have to wait longer - please help us by answering calls from LAS crew as promptly as you can
SBAR handover tool:

- Developed by NHS institute for innovation and improvement
- Useful tool for clear effective clinical handover

Situation:
- I am (name), (X) nurse on ward (X)
- I am calling about (patient X)
- I am calling because I am concerned that...
  (e.g. BP is low/high, pulse is XX temperature is XX, Early Warning Score is XX)

Background:
- Patient (X) was admitted on (XX date) with
  (e.g. MI/chest infection)
- They have had (X operation/procedure/investigation)
- Patient (X)'s condition has changed in the last (XX mins)
  Their last set of obs were (XX)
- Patient (X)'s normal condition is...
  (e.g. alert/drowsy/confused, pain free)

Assessment:
- I think the problem is (XXX)
  And I have...
  (e.g. given O₂/analgasia, stopped the infusion)
  OR
- I am not sure what the problem is but patient (X) is deteriorating
  OR
- I don’t know what’s wrong but I am really worried

Recommendation:
- I need you to...
  Come to see the patient in the next (XX mins)
  AND
  Is there anything I need to do in the mean time?
  (e.g. stop the fluid/repeat the obs)

Ask receiver to repeat key information to ensure understanding

The SBAR tool originated from the US Navy and was adapted for use in healthcare by Dr M Leonard and colleagues from Kaiser Permanente, Colorado, USA.
End of Life Care:

Palliative care crises

• LAS often attend palliative care patients in crisis and are able to provide care and support at this difficult time
• LAS clinicians are able to administer end of life medications

Symptom management

• Ensure end of life drugs are prescribed and available
• Please share with us CMC/care plans/DNAR
• It is important to be clear around ceiling of treatment and decisions regarding hospital conveyance
ROLE – recognition of life extinct:

Recognition of life extinct, our ambulance clinicians have been able to confirm life extinct for 12 years.

- 6,500 known cases last year where life extinct was confirmed

This usually happens where ALS is unsuccessful or where we attend a cardiac arrest and a DNAR is in place.

What we do:

- We leave the documentation with the patient’s family/carer

In some cases we have been called to confirm death (or worse still to manage a cardiac arrest) in a patient who has been dead for some hours which is inappropriate
Coordinate my care:

- First launched in 2012
- >25,000 patients
- Accessible by 999, 111, OOH and other services
- 79% patients with a CMC record die in preferred place of care
- New system launched end of 2015
- EMIS interoperability May 2016
# Special Patient Notes

SPNs provide key information that may be useful in the urgent care situation

- Information shared with OOH, 111 and 999
- Headings include:
  - Child at Risk
  - Adult at Risk
  - HCP at risk
  - LTC
  - Mental Health
  - Substance misuse
  - Frequent caller
  - Communication
  - Access

## Access form via your OOH service

<table>
<thead>
<tr>
<th>CHILD AT RISK</th>
<th>Nature of Risk:</th>
<th>Emotional</th>
<th>Neglect</th>
<th>Physical</th>
<th>Sexual</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>Details:</td>
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<td></td>
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</tr>
<tr>
<td>On Child Protection Plan?</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>Local Authority:</td>
<td>Select A-J</td>
<td>Select K-Z</td>
<td>Case/Ref Number:</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Contact Details for any Key Professional/Service:</td>
<td>Consider including any differences for contacting in hours vs out of hours</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>ADULT AT RISK</th>
<th>Nature of Risk:</th>
<th>Emotional</th>
<th>Financial</th>
<th>Neglect</th>
<th>Physical</th>
<th>Sexual</th>
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</thead>
<tbody>
<tr>
<td>Details:</td>
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<td></td>
<td>Institutional</td>
<td>Discriminatory</td>
<td>Other</td>
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<tr>
<td>Carer’s Name:</td>
<td>Consider also including any relationship to patient</td>
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<td></td>
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<td></td>
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<tr>
<td>Contact Details:</td>
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</tbody>
</table>

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<thead>
<tr>
<th>HEALTH-CARE WORKER AT RISK</th>
<th>Nature of Risk:</th>
<th>Violence</th>
<th>Location</th>
<th>Dangerous Animal</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details:</td>
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<tr>
<td>Any special procedure to follow?</td>
<td>Please Select</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LONG TERM CONDITION</th>
<th>Consider including diagnosis/care plan/admission avoidance plans/dementia/learning difficulties/contact details for appropriate services if patient’s condition deteriorates/any specific location for conveyance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details:</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>Please consider whether you also need to complete other templates – e.g. Adult at Risk</td>
</tr>
<tr>
<td>Name of Key Professional:</td>
<td></td>
</tr>
<tr>
<td>Contact Details:</td>
<td></td>
</tr>
</tbody>
</table>
Patient Specific Protocols (PSP)

- Different from general care plans
- Specific instructions for specific scenarios where treatment is outside usual practice/guidelines (e.g. seizure patients who are overly sensitive to benzodiazepines, patients with special equipment)
- Please contact psp.las@nhs.net for guidance and template if you need to complete a PSP for a patient
LAS GP news:

- Quarterly newsletter for GPs
- Updates and relevant news
- Clinical topics
- Can be found on our external website
- Sent electronically to practice managers
- We would appreciate your feedback on the content of our newsletter and future topics
Thank you - any Questions?