Serious Incident Investigation

STEIS- 2011/23180

Incident date: 30.11.11

Contents

Concise Root Cause Analysis Investigation Report 3

Introduction *3*
Incident description and consequences *4*
Incident date *6*
Incident type *6*
Specialty *6*
Effect on patient *6*
Severity of incident *6*
Detection of incident *6*
Terms of Reference *6*
Support offered to patient/family *7*
Service Delivery Problems *7*
Contributory factors *7*

Conclusions 9

Root Cause 11

Lessons Identified 11

Recommendations 11

Action Plan 11

Implementation, monitoring and evaluation arrangements 12

Arrangements for sharing and learning 12

Executive Approval 12

Appendix 1 13

Chronology of Events 13

Appendix 2 14

Call data for 30th November 2011 14

Appendix 3 16

Demand Management Plan – level summary and actions 16

Appendix 4 17

Resource Escalatory Action Plan level 5 summary of actions 17

Appendix 5 18

TP/065 Conduct on the Road policy – summary of call category response times 18

Appendix 6 19

Action Plan 19

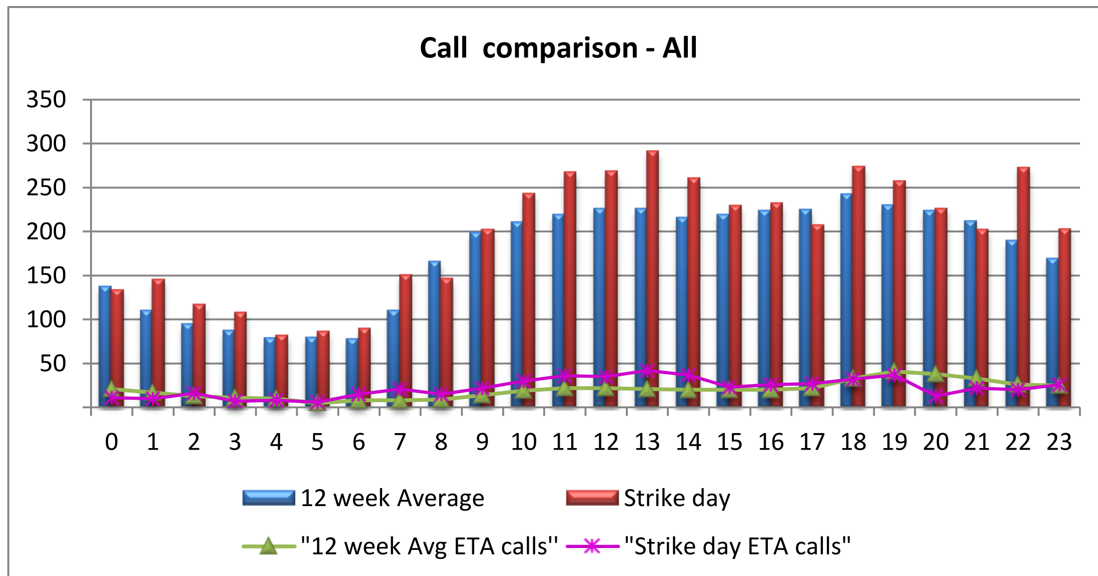
Concise Root Cause Analysis Investigation Report

Introduction

On 30th November 2011 a national day of action took place across the public sector in response to changes to pension schemes. This national action affected many public sector staff groups including NHS Ambulance Services. As a consequence of industrial action held nationally within the health sector, the London Ambulance Service (LAS) faced significant challenges responding to emergency calls on 30 November 2011.

LAS had planned with its trade unions to mitigate the impact of the industrial action and had made numerous adjustments to routine operating so that services were maintained to those most serious emergency calls during the strike action. In doing so it was accepted that less serious calls that would routinely receive a response would not do so during 30th November. It was nationally anticipated, with local intelligence supporting these assumptions, that up to 30% of ambulance sector staff would take strike action.

In the event LAS resources available to attend emergency calls fell by 50% whilst emergency call demand increased during the period of the strike action. This rise in demand is show in the graph below, was not consistent with the period immediately prior to 30th November and therefore was not forecast as part of planning for 30th November 2011.



The Trust rose through the levels of its Resource Escalatory Action Plan (REAP) designed to reduce non essential activity and release clinically trained staff to frontline operations, implemented its Demand Management Plan (DMP) reducing responses to less serious emergency calls and declared an “internal major incident” at 1317 hours. This was as a direct consequence of reduced capacity resulting from strike action, increased demand and rising numbers of emergency calls waiting for a response and enabled a recall call to duty option to be triggered in the agreement

with trade unions that was reached prior to the industrial action commencing.

An internal review of the events leading up to and on 30th November 2011 has been completed that highlights a number of recommendations for any future industrial action. A further review is also underway led by NHS North West London on behalf of NHS London.

At 1228 hours on 30th November LAS received a call to attend an elderly male who subsequently died. This investigation reviews the circumstances of this event.

Incident description and consequences

To investigate this incident the investigating officer has reviewed the following information:

- Demand Management Plan (summary at appendix 3)
- Resource Escalatory Action Plan (summary of level 5 actions at appendix 4)
- TP/065 Conduct on the Road procedure (summary of response times at appendix 5)
- Heads of Agreement between LAS and Trade Unions covering emergency cover arrangements for industrial action of 30th November 2011
- Quality assurance reports referring to the five calls received
- Call analysis data from 30th November (appendix 2)
- Call log summary for CAD1889, 2186, 2430, 2751 and 2759
- Clinical Opinion provided by Dr Neil Thomson (dated 24/01/12)

LAS received five emergency calls to attend this patient. They are:

1. CAD 1889 at 1228 hours – initial category C3
2. CAD 2186 at 1329 hours – initial category C2
3. CAD 2430 at 1418 hours – initial category R2
4. CAD 2751 at 1543 hours – initial category R2
5. CAD 2759 at 1545 hours – initial category R1

The first 999 call received was at 1228 hours to an 83 year old man who had been found on the floor by his family at 1215 hours, he had apparently fallen at 0930 hours. The call was triaged as C3 which requires in routine operating a call back from the Clinical Telephone Advice (CTA) desk within twenty minutes or a response on scene within 30 minutes. At 1249 hours CTA called back and confirmed the patient's condition was unchanged.

A second 999 call was received at 1329 hours requesting an estimated time of arrival, it was established that the patient's condition remained the same and the caller was advised of potential further delays.

After the second call was received but before the third emergency call was received

the LAS declared an internal major incident and escalated the level of its REAP and DMP to reflect this. REAP moved to level 5 of 6 and DMP to level F (6) of 8.

Level 5 of REAP indicates critical pressure and is very rarely declared. Associated with this is the declaration of an internal major incident signalling to the health economy that the Trust is experiencing critical pressure and unusual circumstances that require special arrangements to be put in place to manage the situation. The actions associated with escalating levels of REAP are designed to release clinically trained staff to frontline duties in an effort to maximise resources that are available to respond to emergency calls. It is a plan that is used in a pre-emptive way and LAS entered 30th November at REAP level 4 ensuring that all non essential activity had been postponed and that all clinically trained staff were assigned to patient facing duties or those that supported such activity. Routine operating within REAP is level 1.

DMP is a reactive plan that is designed to protect ambulance responses to those that are most seriously ill or injured during times of increased pressure. It is a plan that should be used when demand significantly outstrips capacity to respond and can be deployed to support forecast (other mitigations should be used as part of an integrated plan in these circumstances) or unplanned surges in demand. As escalation through the levels of the plan occur the ambulance response to calls that are triaged as less serious are progressively restricted to protect the response to those who are assessed as most serious. The LAS employs an internationally recognised telephone based clinical triage system (MPDS) that assigns a response priority to each of the 1.4 million 999 calls LAS handles each year based on the information provided by the caller. It is this triage system that forms the basis of the restrictions placed on ambulance responses when DMP is authorised. The policy document that supports DMP sets out a series of escalation triggers. These were appropriately applied on 30th November. Routine operating within DMP is level A with escalation above level B requiring the authority of a senior operational manager and a senior member of the medical directorate.

The caller was able to lift the patient off the floor prior to arrival of LAS and until 1418 hours he was alert and talking. However, the patient began to feel very unwell and was reported as breathless and clammy at the third 999 call which was correctly prioritised as Red 2 which was received at 1418 hours. There was no available resource to send to the patient.

At 1507 hours an A&E consultant working for the LAS Medical Directorate rang the caller back to check on the patient's condition, confirming the current categorisation and that the patient needed to go to an Emergency Department. The first resource to become available was dispatched at 1542 hours.

Two further calls were received at 1543 hours and at 1545 hours when the patient was reported to have deteriorated further and at 1545 hours had stopped breathing. Cardio-pulmonary resuscitation (CPR) instructions were given to the caller by the call taker. A further resource was dispatched to scene on a Red 1 category call that being

the highest possible.

The first LAS resource arrived at 1551 hours. The patient deteriorated further, going into cardiac arrest when the crew moved the patient to the ambulance. Following resuscitation attempts in accordance to the Resuscitation Council Guidelines, which were unsuccessful, the patient was pronounced dead by the crew at 1646 hours.

National patient waiting time standards for emergency ambulance response indicated that LAS should arrive on scene in 75% of occasions within 8 minutes of origin for calls categorised as immediately life threatening. The local response time standard for C1 calls is 20 minutes on 95% of occasions and for C2 calls is 30 minutes 95% of the time. On 30th November 2011 LAS was on scene at emergency calls categorised as immediately life threatening on 75% of occasions within 20 minutes.

Incident date	30th November 2011
Incident type	Delayed response
Specialty	Ambulance services
Effect on patient	Death (possibly linked to delayed response)
Severity of incident	Serious

Detection of incident

During the course of the national industrial action on 30th November 2011 the management incident logs for the day note that in the strategic command team (Gold) meetings held at Trust Headquarters this incident was highlighted as a potential serious incident at 1630 hours.

It was subsequently reviewed by the Serious Incident Group on 5th December 2011 and declared as a serious incident to NHS London.

Terms of Reference

1. To identify the root causes and key learning from the incident and use this information to significantly reduce the likelihood of future harm to patients
2. To establish the facts i.e. what happened to whom, when, where, how and why
3. To establish whether failings occurred in care or treatment
4. To look for improvements
5. To establish how recurrence may be reduced or eliminated
6. To formulate recommendations and an action plan
7. To provide a report and record of the investigation process & outcome
8. To provide a means of sharing learning from the incident
9. To identify routes of sharing learning from the incident

Support offered to patient/family

It is not possible to determine from the patient report form (PRF) who the next of kin are and their contact address. The Investigation Officer has written to the General Practitioner and contacted the District nursing team in an effort to identify the next of kin. The results of which have proved negative.

The Electoral Roll was also accessed and the deceased was the only named occupant of the address.

Through the reasonable investigative steps available to the investigating officer and LAS it has not been possible to establish who the next of kin may be and as such it has not been possible to provide support to family and or friends in this case.

Service Delivery Problems

1. On 30th November 2011 LAS was operating under significant pressure as a result of increased demand, reduced capacity/staffing as a result of the national day of action over the pensions dispute including industrial action within the ambulance sector
2. Further reduced ambulance availability occurred as a result of more staff than anticipated taking full industrial action
3. A response delay of over 3 hours in a arriving at the patient's address following the receipt of the first emergency call at 1228 hours (it should be noted that the first call requiring a response was received at 1329 hours thus indicating an actual response delay of 2 hours 21 minutes on a call categorised as C2, following receipt of the call receiving a R2 response resources arrived at scene after 1 hour 32 minutes)
4. Some frontline staff were not fully conversant with the terms of the agreement reached between management and staff side covering the industrial action and withdrew labour from calls not categorised as Red (immediately life threatening)
5. When the triggers for recall to duty were at reached 1317 hours within the agreement between LAS and staff side representatives to return to duty, despite a personal letter handed to all staff at the picket lines from the Chief Operating Officer, SMS text messages to all staff on our overtime texting system and a general broadcast message to all mobile data terminals (MDTs), this did not have the planned or desired effect. Only a minimal number of staff returned from the picket line to full duties and did not significantly increase the capacity to respond to calls more effectively

Contributory factors

1. Industrial Action reduced the number of resources available to the service to respond to emergency calls
2. Increased and unforeseen demand increase yet further increased the pressure

on LAS across 30th November 2011

3. When the first call was made it was triaged as requiring a C3 response. DMP was at level D and therefore a ring back within 60 minutes was required and therefore a resource was not dispatched to scene of this call
4. The declared internal major incident at 1317 hours led to escalating levels of DMP to level F (where response are restricted to Red 1, Red 2 and C1 calls only) that further restricted ambulance responses to less serious emergency calls
5. Prior agreements between LAS and staff side representatives to provide cover for emergency calls and recall to duty were not adhered to in full

Conclusions

1. Widespread industrial action within the public sector on 30th November 2011, including the NHS ambulance sector across England and London Ambulance Service NHS Trust (LAS) resulted in significant staffing reductions, more so than were anticipated.
2. Demand to LAS on 30th November 2011 rose above the 12 week prevailing average and could not be associated with factors usually leading to a foreseeable rise in demand.
3. Five 999 calls were received between 1228 hours and 1545 hours to attend an 83 year old man who was believed to have fallen at around 0930 hours that morning.
4. The initial call was prioritised as C3 requiring a telephone assessment within 20 minutes or a response on scene within 30 minutes. The level of DMP in place at the time meant that the caller would receive a call back from a clinical member of staff in CTA within 60 minutes however this was completed within 22 minutes of the call being made.
5. At 1317 hours LAS declared an internal major incident and moved to level 5 of REAP and F of DMP meaning that calls categorised as C2 or below did not receive an ambulance response.
6. At 1418 hours a further emergency call was made receiving a priority of Red 2 based on the information provided during that call. A resource should have been on scene within 8 minutes. There were no resources available to send until two ambulances (J401 and H402) were dispatched at 1542 hours and 1550 hours respectively, arriving at 1552 hours and 1601 hours.
7. An A&E consultant working for the LAS Medical Directorate rang the patient and made contact at 1507 hours to assess the presenting condition and ascertained that whilst the patient did need to travel to an Emergency Department the categorisation of the call was correct at that time.
8. The Quality Assurance review of the call taking suggests that all the 999 calls were handled appropriately, and were compliant with Medical Priority Dispatch System (MPDS) and the escalating levels of Demand Management Plan (DMP) in place on the day.
9. On arrival of the first crew, the patient was in a collapsed state with gasping respiration, and he deteriorated rapidly. Having been transferred to the ambulance he suffered a cardiac arrest in the rear of the vehicle. Despite an advanced life support (ALS) resuscitation attempt, the patient did not recover. It is recognised that falls in older people are associated with a significant risk of morbidity and mortality. In addition the mortality rate is likely to be higher in patients who have a ‘medical reason’ for the fall and the longer a person stays immobile on the floor, the greater the risk of death, through inadequate

ventilation and impaired circulation. Similarly, a patient with more co-morbidities and a poorer state of health is likely to fare worse.

10. The level of care provided by LAS to this patient fell below that reasonably expected. The significant delay in responding is likely to have caused a degree of pain and suffering.
11. The cause of death has been recorded by HM Coroner as Ischemic Heart Disease. The clinical opinion was that the patient may sadly not have survived even if we had reached him more quickly.

Root Cause

On 30th November 2011 there were limited resources to send to emergency calls that were not immediately prioritised as serious or life threatening as a result of industrial action.

Agreed plans to provide emergency cover for the anticipated level of absence of 30% were not effective in mitigating against the 50% losses on the day.

Recall to duty arrangements during the period of Industrial Action were not successful in increasing available staffing as pressure began to rise.

Lessons Identified

1. The agreements in place between LAS and senior staff side representatives for 30th November 2011 were not supported by all crew staff
2. There is a significant risk that further industrial action may compromise the Trusts ability to respond to less serious calls
3. National assumptions concerning the level of likely staff losses underestimated the number of staff that in the event withdrew their labour in full
4. A series of complex national industrial relations issues are at the heart of the increased staff losses experienced on 30th November
5. There is a possibility that elderly patients with complicated pre-existing conditions are placed at greater risk during periods of high demand or extreme pressure. The impact of their pre-existing conditions that may not be known at the time of the emergency call and may adversely impact on the primary reason for the call, leading to a worsening of their overall condition

Recommendations

1. Work to implement the recommendations from the internal LAS review of 30th November 2011 putting in place steps to further minimise the impact of any further industrial action paying particular attention to the ongoing excessively high utilisation (in excess of 85%) experienced in LAS and those touching on staff satisfaction, their reasons and remedies
2. Undertake further analysis of the outcome of elderly fallers within LAS and if indicated consider a more in depth secondary telephone triage assessment to expose pre-existing conditions that could adversely impact or complicate their underlying condition
3. Undertake further staff training to ensure that all staff understand their role during an internal major incident in particular to support the ongoing delivery of patient care

Action Plan

See Appendix 5

Implementation, monitoring and evaluation arrangements
The Senior Management Group (SMG) will review the report and approve the recommendations. The Assistant Directors Group (ADG) will allocate actions to individual owners and monitor the implementation of the action plan. The Learning from Experience and Quality Committees will monitor progress with implementation of the agreed action plan.
Arrangements for sharing and learning
The Trust uses both face to face training sessions and conferences with different staff groups to share the learning from incidents. The Routine Information Bulletin is published once a week and is a mechanism for disseminating information to all staff.
Executive Approval
The Chief Executive and members of the Senior Management Group have reviewed and approved the report. Date: 26th March 2012

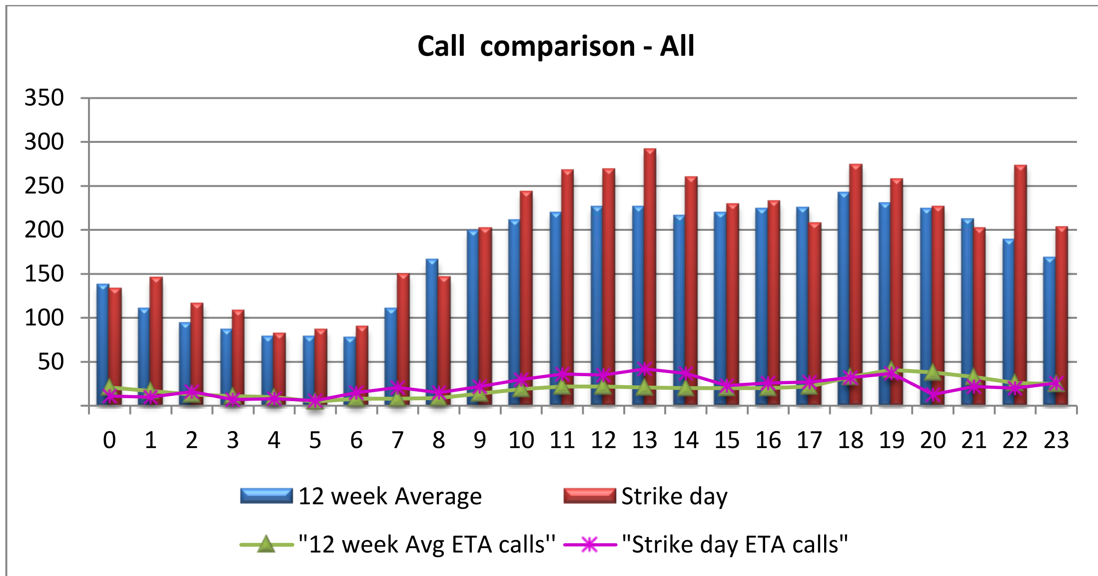
Appendix 1

Chronology of Events

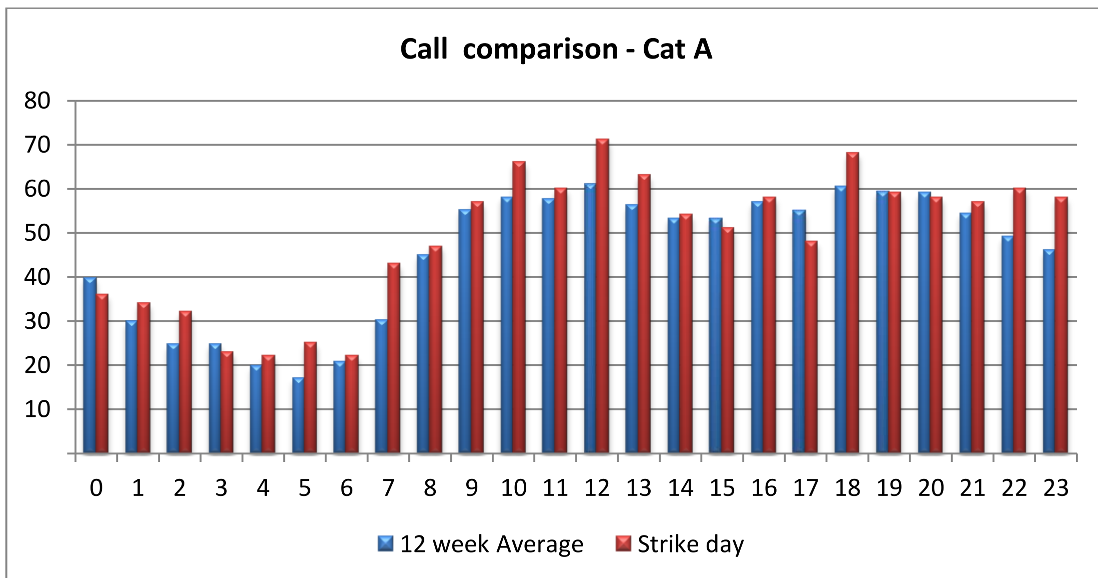
DATE/ TIME	EVENT 30 November 2011
08:30	LAS operating with special arrangements in place and at DMP level D and REAP 4 as a result of industrial action across the public sector including NHS Ambulance Trusts
12:28	1st 999 call received for a patient who has fallen and lying on the floor since approximately 0930 hours. Prioritised as C3 from the information provided by the caller. Caller advised of potential delays in response due to Industrial Action
12:42	Call passed to Clinical Telephone Advice for ring back
12:49	Ring back to caller and details established regarding patients condition
13:17	LAS declared an internal major incident escalating to REAP level 5 and DMP level F
13:29	2nd 999 call requesting an estimated time of arrival for resource to arrive to treat patient. Patients condition is established as being the same and caller advised of potential further delays
14:18	3rd 999 call received. Patients' condition has changed although he is no longer on the floor; he is reported to be breathless and clammy. Call is prioritised as a Red 2 call
15:07	Ring back by an A&E consultant working for the LAS Medical Directorate and patients' condition is the same.
15:42	Vehicle J401 dispatched to scene
15:43	4th 999 call received. Patients' condition is established to be worsening. Call prioritised as a Red 2 call
15:45	5th 999 call received. Patient has stopped breathing. CPR instructions given by call taker
15:50	H402 dispatched to scene
15:52	Vehicle J401 arrives on scene
16:01	Vehicle H402 on scene
16:46	Recognition of Life Extinct

Appendix 2

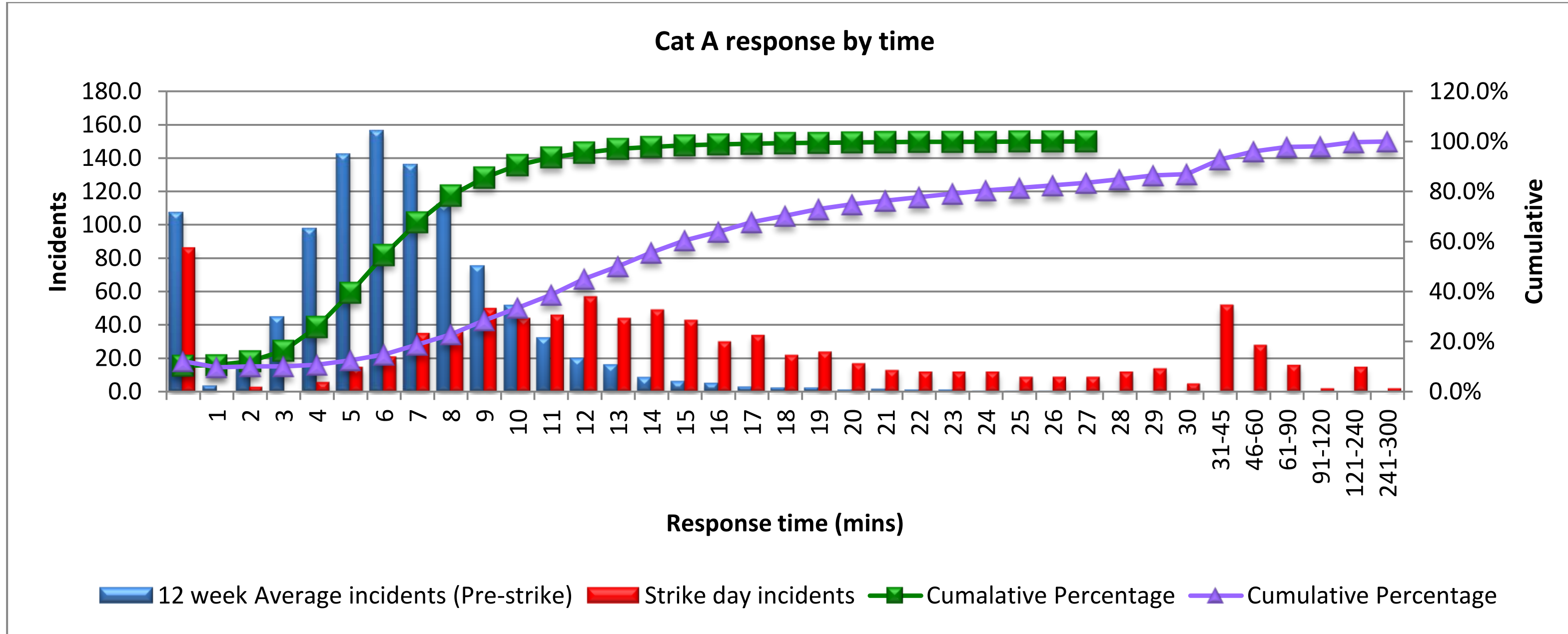
Call data for 30th November 2011



All calls received on 30th November 2011 compared to the prevailing 12 week average



Red/Category A/Immediately Life Threatened calls received on 30th November 2011 compared to the prevailing 12 week average



Red/Category A/Immediately Life Threatened call response time tail for 30th November 2011

(NB national patient waiting time standard for such calls is 75% within 8 minutes of origin)

Appendix 3

Demand Management Plan – level summary and actions

DMP Stage	No Send at First Contact	→ Clinical Assessment	Authority	Review	Abandoned Calls	Hospital Transfers	REAP
A	Operating as Normal						1 - 4
B	None	**CTA Ring-back (RB):** C3 – 45 minutes; C4 – 80 minutes **CSD** to monitor and ring back calls held in EOC	Control Services AOM	No less than every 2 hours	CSOP applies	Transfers as Normal	1 - 4
C	C4 age 5 to 69 years	**CTA** C4 Less than 5 & 70 and over →CTA RB 80 minutes C3 Less than 5 & 70 and over →CTA RB 60 minutes **CSD** to monitor and RB calls held in EOC	Gold	No less than every 4 hours May be conducted remotely	CSOP applies	Immediate inter-hospital transfers increased to 2 hours.	1 - 4
D	C4 and C3 age 5 to 69 years	C4 <5 & 70 and over → CTA (No PSIAM) RB 80 minutes C3 <5 & 70 and over → CTA (PSIAM) RB 60 min C2 → CDDG RB 45 minutes (CSD or CTA)	Gold	No less than every 2 hours If extended at 2nd review, Gold Team will attend HQ	CSOP applies	Immediate inter-hospital transfers increased to 2 hours.	1 - 4
E	C4 and C3	C1 and C2 → CD Dispatch Group. Appropriate calls passed to CTA for PSIAM assessment.	Gold	No less than every 60 minutes Gold Team will attend HQ	No Ring-backs No Send on Abandoned Calls	Critical Transfers Only Operational staff to be informed that all journeys to be done under emergency conditions	5
F	C4, C3 and C2	C1 → CD Dispatch Group	Gold	No less than every 60 minutes Gold Team will attend HQ	No Ring-backs No Send on Abandoned Calls	Critical Transfers Only Operational staff to be informed that all journeys to be done under emergency conditions	5
G	C4, C3, C2 and C1	Red2 Breathing and Conscious → CD Dispatch Group	Gold	No less than every 60 minutes Gold Team will attend HQ	No Ring-backs No Send on Abandoned Calls	Critical Transfers only under the authorisation of Gold Doctor	6
H	C4, C3, C2, C1 and Red2 Breathing and Conscious	Red1 and Red2 Breathing and unconscious To be authorised by Gold Doctor	Gold	No less than every 60 minutes Gold Team will attend HQ	No Ring-backs No Send on Abandoned Calls	Critical Transfers only under the authorisation of Gold Doctor	6

Date of Issue: 18th July 2011	Review by Date: 20th April 2012
Authorised by: Deputy Director of Operations	To be reviewed by: Deputy Medical Director & Deputy Director of Operations
Index No. DMP v7	Page 25 of 27

Appendix 4

Resource Escalatory Action Plan level 5 summary of actions

REAP LEVEL 5 - CRITICAL	ACTION	DECISION	RESPONSIBLE	IMPACT	REVIEW	SUPPORT DEPTS.	FUNDED
	ALL LEVEL 1 – 4 ACTIONS PLUS:						
	Declare internal Major Incident. Advise SHA & Trust Board	CEO	DIR OPS	Med	Daily	All Depts.	Yes
	Increase use of No Send Policy	MED DIR	ADO	High	Daily		No
	Implement the Extreme Over-Capacity Plan at appropriate stage if not already implemented and commence the gradual restricting of responses: • stop attending Cat C calls • triage a subset of Cat B calls before responding to them • respond only to Cat A calls and remaining Cat B calls	DEP DIR OPS & MED DIR	ON-CALL GOLD	High	Hourly		No
	Request national mutual aid if appropriate	DIR OPS	ADO	Med	Daily		Yes
	High profile media campaign to discourage inappropriate use	DEP CE	DEP DIR OPS	High	Daily	Comms. Dept	Yes
	Paramedics/ECPs/EMT4 to be authorised to refuse conveyance after assessment	DIR OPS/ MED DIR	MED DIR	High	Daily	DED	No
	Suspend rest breaks (in accordance with Major Incident Plan)	DIR OPS	DIR HR	High	Weekly		
	Source accommodation for key individuals close-by to LAS premises	DIR OPS	HEAD OF OPS SUPPORT	Low	Weekly		Yes
	Provide operational feeding to front-line staff	DEP DIR OPS	ADO	Low	Daily	Ops Support	Yes
	Review attendance of nursing homes without prior GP approval	MED DIR	ADO CS	Med	Daily		No
	GP admissions to be extended for 4 hours for all patients	MED DIR	ADO CS	High	Daily		No

Date of Issue: October 2009	Review Date: October 2010
Authorised by: Chief Executive / Chief Ambulance Officer	To Be Reviewed By: Deputy Director of Operations
Index No: Capacity Plan (REAP)	Page 16 of 22

Appendix 5

TP/065 Conduct on the Road policy – summary of call category response times

	National Key Standard		Locally Agreed Response Profile			
	Category A (Red Calls)		Category C Calls			
	Red 1 (Echo codes)	Red 2	Category C1	Category C2	Category C3	Category C4
	Respond to 75% of Category A (Life-threatening) calls within 8 minutes or less.	Respond to 75% of Category A (Life-threatening) calls within 8 minutes or less.	Response in 20 minutes	Response in 30 minutes	Telephone Assessment within 20 minutes or Respond as Category 2	Clinical Telephone Assessment (CTA) within 60 minutes or respond within 60 minutes
	19 minute transport standard	19 minute transport standard			Report as C3	Pass to NHSD
MDT CODE	RED 1	RED 2	C1 EM	C2 EM	C3 EM	C4

Figure 1

Appendix 6

Action Plan

	Action 1
Root Cause	On 30th November 2011 there were limited resources to send to emergency calls that were not immediately prioritised as serious or life threatening as a result of industrial action. Agreed plans to provide emergency cover for the anticipated level of absence of 30% were not effective in mitigating against the 50% losses on the day. Recall to duty arrangements during the period of Industrial Action were not successful in increasing available staffing as pressure began to rise.
Recommendation	Work to implement the recommendations from the internal LAS review of 30th November 2011 putting in place steps to further minimise the impact of any further industrial action paying particular attention to the ongoing excessively high utilisation (in excess of 85%) experienced in LAS and those touching on staff satisfaction, their reasons and remedies
Responsible for Action	
Target date for Implementation	
Monitoring & Evaluation	
Sign off action completed	
Date of submission to Learning from Experience	

	Action 2
Root Cause	On 30th November 2011 there were limited resources to send to emergency calls that were not immediately prioritised as serious or life threatening as a result of industrial action. Agreed plans to provide emergency cover for the anticipated level of absence of 30% were not effective in mitigating against the 50% losses on the day. Recall to duty arrangements during the period of Industrial Action were not successful in increasing available staffing as pressure began to rise.
Recommendation	Undertake further analysis of the outcome of elderly fallers within LAS and if indicated consider a more in depth secondary telephone triage assessment to expose pre-existing conditions that could adversely impact or complicate their underlying condition
Responsible for Action	
Target date for Implementation	
Monitoring & Evaluation	
Sign off action completed	
Date of submission to Learning from Experience	

	Action 3
Root Cause	On 30th November 2011 there were limited resources to send to emergency calls that were not immediately prioritised as serious or life threatening as a result of industrial action. Agreed plans to provide emergency cover for the anticipated level of absence of 30% were not effective in mitigating against the 50% losses on the day. Recall to duty arrangements during the period of Industrial Action were not successful in increasing available staffing as pressure began to rise.
Recommendation	Undertake further staff training to ensure that all staff understand their role during an internal major incident in particular to support the ongoing delivery of patient care
Responsible for Action	
Target date for Implementation	
Monitoring & Evaluation	
Sign off action completed	
Date of submission to Learning from Experience	