



London Ambulance Service



NHS Trust

Intelligent Conveyance

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Context...

- 620 Square miles
- 8.2 million population
- **1.7 million** 999 calls in 2012/13
- Over 767,100 Transports to Emergency Departments per year (2013/14)
- 31 Emergency Departments
 - 4 (Level 1) Major Trauma Centres
 - 9 Heart Attack Centres
 - 8 Hyper Acute Stroke Units



Intelligent Conveyance (IC) Aim

To monitor, proactively manage and minimise surge impact of LAS Ambulance arrivals at EDs

To assist ED capacity management by maintaining steady patient flow through EDs, leading to improved patient safety and experience



Intelligent Conveyance

- Existing policy for Emergency Department (ED) re-direct and closure
- **Not aimed at reducing ED transports**
- Additional £900,000 funding from NHS England (London) to run project
- IC Desk operated by Paramedics and EMDs
- Operational from 08.00 – 00.00



Methodology

- Baseline hourly arrival figures for each ED calculated from historic ED attendance data
- EDs sub-divided into 3 groups & maximum hourly arrival figures calculated

		Ambulance arrivals per hour		
		0800-1159	1200-2059	2100-0000
Large Hospital	Normal Business	6	8	6
	High Pressure	8	10	8
	Extreme Pressure	10	13	10
Medium Hospital	Normal Business	4	6	4
	High Pressure	6	8	6
	Extreme Pressure	9	12	9
Small Hospital	Normal Business	2	3	2
	High Pressure	3	5	3
	Extreme Pressure	7	9	7

Baseline arrival figures can be raised during periods of high pressure on discussion with the IC Clinical Lead and Duty Ops Manager. This will only happen when all hospitals within an area have reached their maximum hourly arrival figure.

Similarly during periods of extreme pressure such as snow or flu pandemics the baseline can be raised further.



- Live data capture
(rolling 60 minute period)

- Hourly arrival triggers:
 - <80% = Green
 - 80% = Amber
 - 100% = Red
 - 120% = Purple

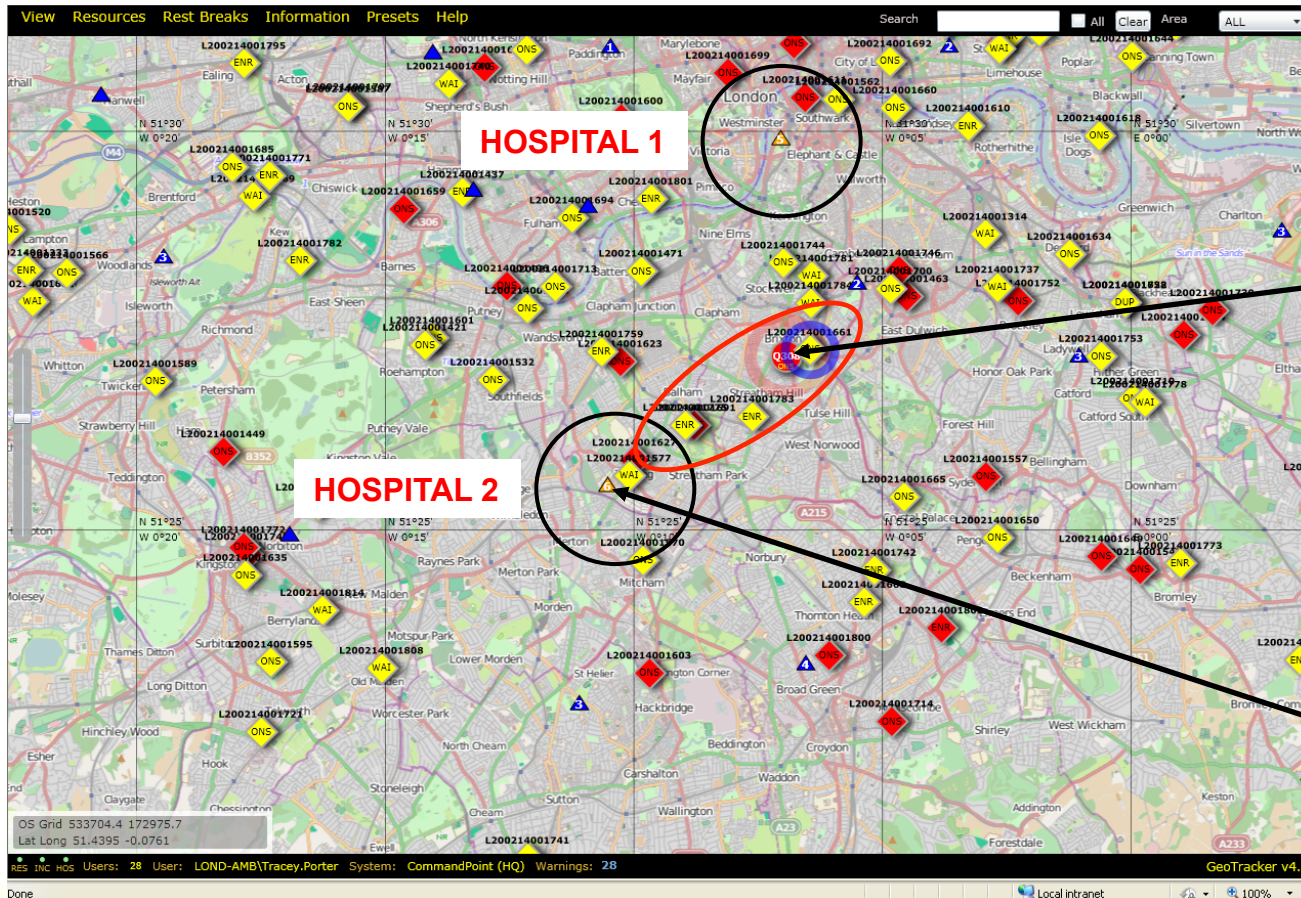
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Hospital Summary

West (High) East (High) South (High) Admin

Hospital Name	En Route Units	At Hospital Units	In Previous 60
King's College Hospital, Denmark Hill - A&E	1	2	2
St Thomas' Hospital - A&E	2	3	2
St George's Hospital, Tooting - A&E	1	1	2
Queen Elizabeth Hospital, Woolwich - A&E	1	2	3
Princess Royal University Hospital - A&E	1	3	5
St Helier Hospital - A&E	1	2	2
Croydon University Hospital (Mayday) - A&E	1	3	0
Kingston Hospital - A&E	0	1	4
Darent Valley Hospital - A&E	1	0	0
Lewisham University Hospital - A&E	0	2	5
Epsom General Hospital - A&E	0	0	0





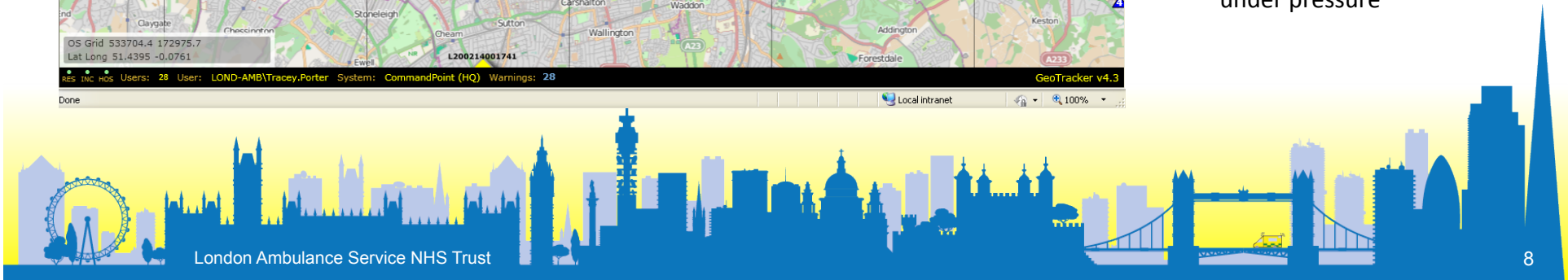
Calls between 2 hospitals targeted by the IC desk

CAD number and vehicle call sign identified

Dedicated clinician reviews the calls for suitability for an alternative ED

The crew are contacted on scene to discuss this option with the patient

Hospital 2 identified as under pressure



IC In Action



- Review of call details by Paramedic to ascertain if appropriate for IC intervention
- Message sent to ambulance MDT to instruct transport away from an ED which is amber or red (360°)
- Dedicated Airwave talk group for crews to contact IC



IC Exclusion Criteria

- Pre Alerts
- Paediatrics
- Acute Specialist Care Pathway (i.e. Stroke)
- Patient receiving on-going treatment at a specific hospital
- HCP Referral
- Social Services involvement
- Minor Injury/illness suitable for urgent care



Results

- 8650 transports managed by IC
- 37% transported to nearest ED
- 39% transported to alternative ED
- **24% patients not transported**



Results (3 Month Data Period)

- Number of ED diverts reduced from 61 to 26 compared to 2012/13
- Reduction in 1 hour handover breaches: **471 (2012/13) & 303 (2013/14)**
- No clinical incidents
- No increase in hospital length of stay



Next Steps

- Business as usual?
- Use during surge periods (winter, pandemic illness etc.)
- Future funding post March 2014



Thank You

