London Ambulance Service NHS
NHS Trust

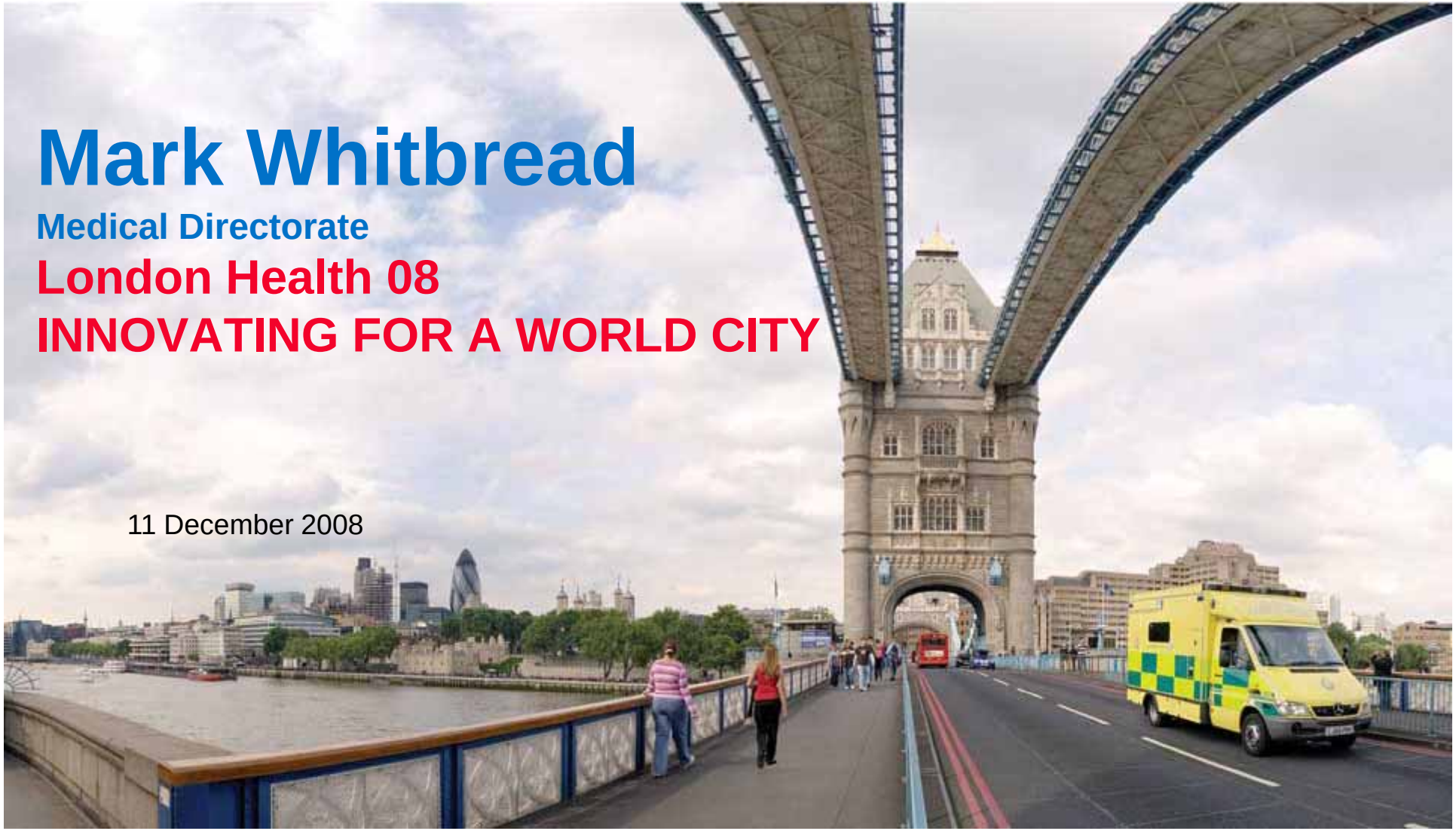
Mark Whitbread

Medical Directorate

London Health 08

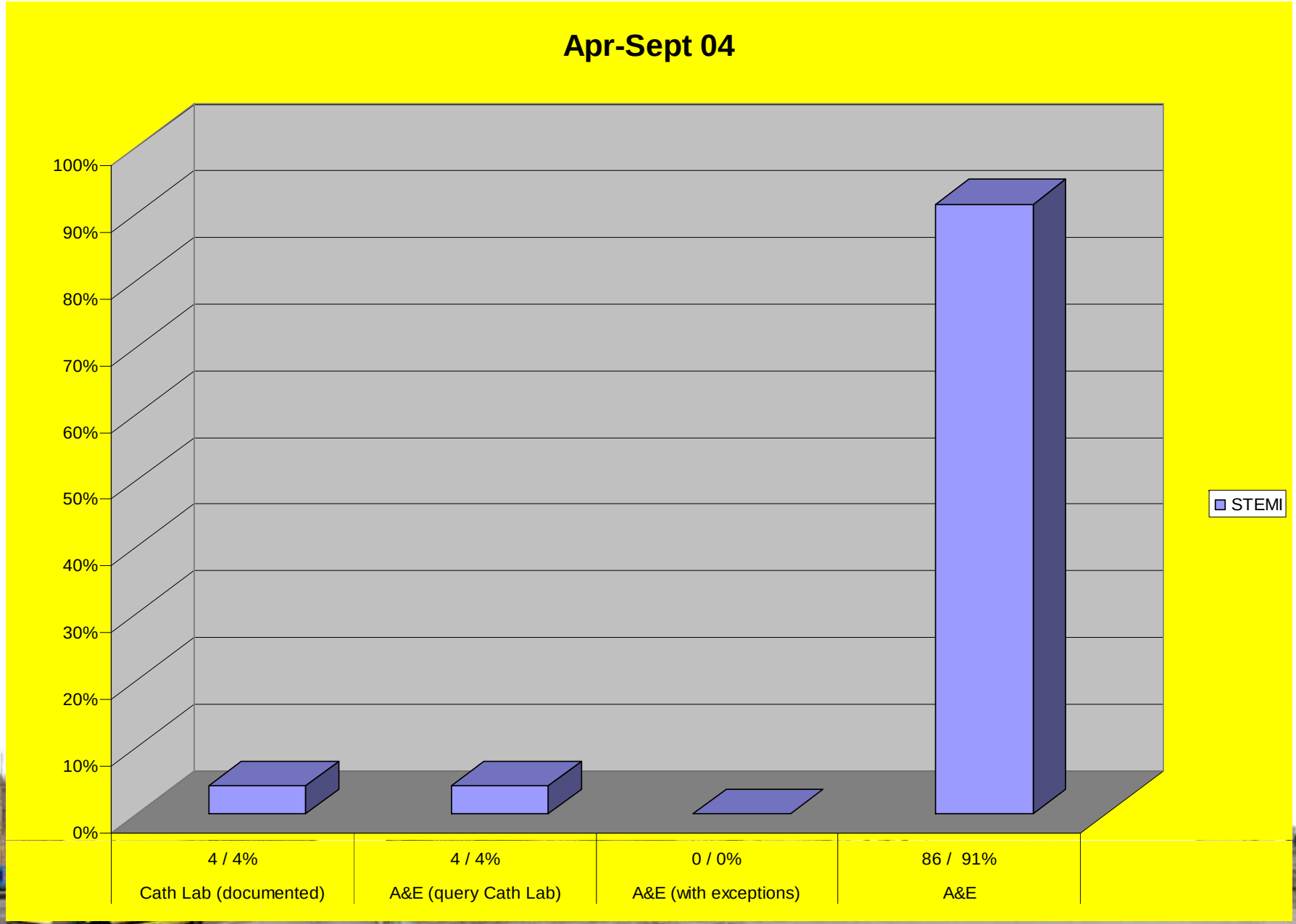
INNOVATING FOR A WORLD CITY

11 December 2008

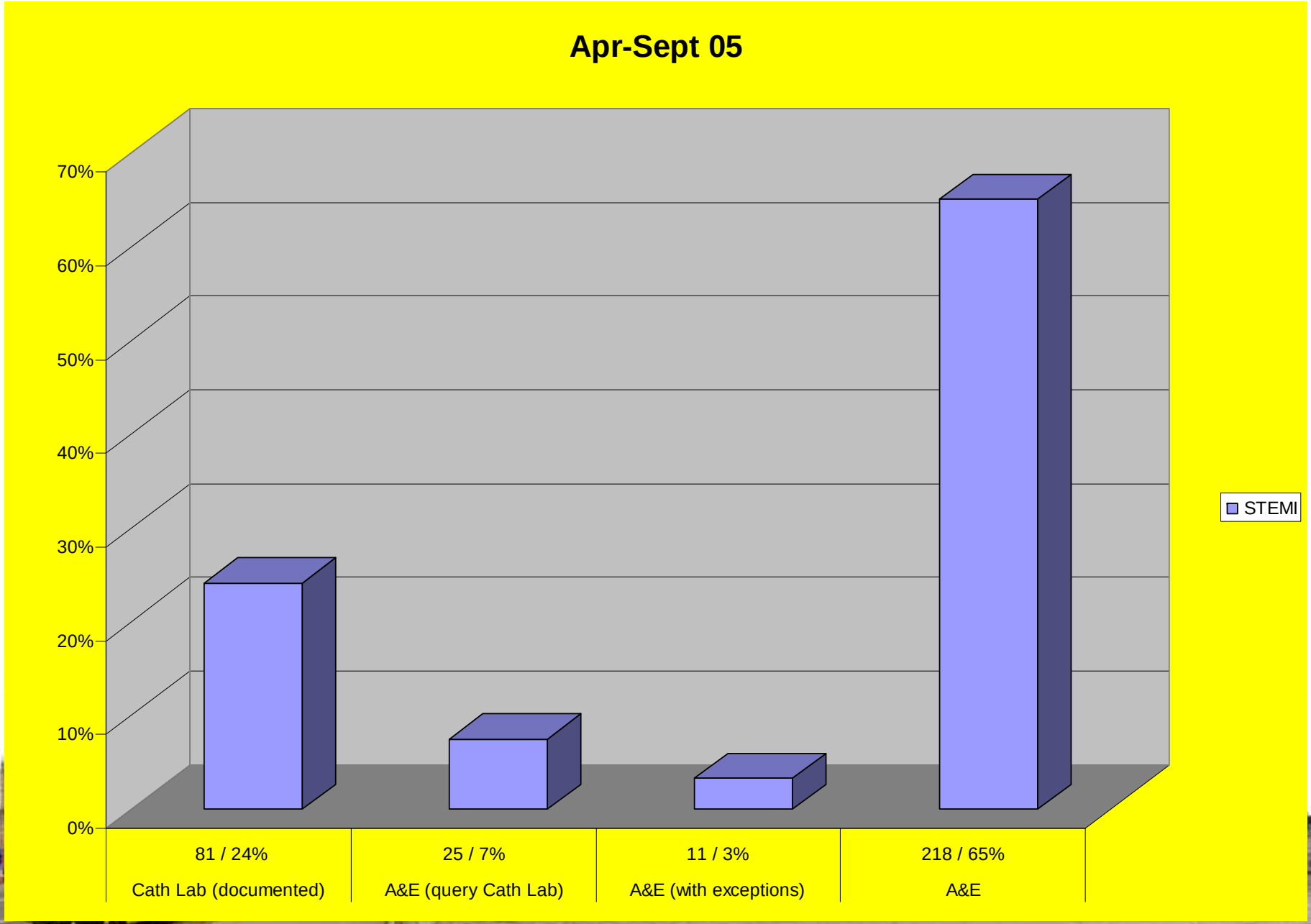


World’s busiest ambulance service

Improving coronary care


Apr-Sept 04
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
STEMI
4 / 4%
Cath Lab (documented)
4 / 4%
A&E (query Cath Lab)
0 / 0%
A&E (with exceptions)
86 / 91%
A&E

4


Apr-Sept 05
70%
60%
50%
40%
30%
20%
10%
0%
STEMI
81 / 24%
Cath Lab (documented)
25 / 7%
A&E (query Cath Lab)
11 / 3%
A&E (with exceptions)
218 / 65%
A&E

London Ambulance Service NHS

Medical

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22 March 2006

Change in clinical practice

Following the extensive work and planning that the Service has undertaken over the past two years, from **Monday 3 April 2006** all crews who have confirmed by 12-lead ECG that a patient has ST elevation myocardial infarction (STEMI) should convey them to the nearest 'Heart Attack' centre.

This may mean bypassing local accident and emergency departments. The patient should otherwise be managed as per national clinical guidelines.

When placing a priority call via EOC please ensure that you clearly state that you have a confirmed MI by 12-lead ECG and that you are going to the cardiac cath lab.

Heart Attack centres and opening hours:

London Chest Hospital	24 hours, 7 days a week
King's College Hospital	24 hours, 7 days a week
Harefield Hospital	24 hours, 7 days a week
St George's Hospital	24 hours, 7 days a week
Hammersmith Hospital	24 hours, 7 days a week
St Mary's Hospital	24 hours, 7 days a week
The Heart Hospital	24 hours, 7 days a week
St Thomas' Hospital	24 hours, 7 days a week
Royal Free Hospital	24 hours, from 07:00 hrs on Monday to 19:00 hrs on Friday only.

Further information can be obtained from Mark Whitbread, Clinical Practice Manager.

Fionna Moore
Medical Director

Exceptional

A myocardial infarction (MI) is caused by the rupture of a section of coronary plaque, with the formation of a thrombus (clot).

Treatment aims to restore normal blood flow along the affected artery.

Even with rapid administration of thrombolysis, the proportion of patients achieving normal (TIMI-3) flow in the infarct-related artery is no more than 60-70 per cent.

Thrombolysis may take from 60 to 90 minutes to work.

There is clear evidence that primary angioplasty, otherwise known as percutaneous coronary intervention (PCI), for acute MI preserves left ventricular function and reduces mortality, when compared to thrombolysis.

Primary angioplasty is currently the most effective way to recover normal blood flow (TIMI-3) in an infarct-related artery. It achieves this in 90 to 95 per cent of cases. It also avoids thrombolysis-associated stroke and has a much lower re-occlusion rate.

Hospitals offering primary angioplasty:	
Hammersmith - 24 hrs, 7 days a week	**Harefield** - 24 hrs, 7 days a week
The Heart - 24 hrs, 7 days a week	**St Mary's** - 24 hrs, 7 days a week
London Chest - Mon to Fri, 8am - 4pm	

Ambulance crews who are near to these centres should go direct using a 'blue call' & CASMEET.

For further information, please contact Mark Whitbread, Assistant Head of Clinical Education and Development on 020 8557 1791 or email Mark.Whitbread@lond-amb.nhs.uk

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London's HAC's

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12-Lead ECG News

999 Call to Cardiac Cath Lab
Direct admission from scene to the Cardiac Cath Labs *PAN LONDON* for confirmed acute MI patients

Selection criteria:

- Patients with cardiac chest pain suggestive of Acute Coronary Syndrome
- Sustained **CARDIAC CHEST PAIN** (more than 15 minutes) within the last 9 hours
- 12 Lead ECG showing **CLEAR ST Elevation** in TWO or more leads of the same group
- AT LEAST 2mm (2 small squares) Anterior leads
- AT LEAST 1mm (1 small square) non anterior leads
- Orientated and conscious

Patients NOT to be taken to the cardiac cath lab (should go to LOCAL A&E):

- Unconscious patients
- Intubated patients
- Patients in cardiac arrest ON ARRIVAL AT SCENE
- Patients with Left Bundle Branch Block on their ECG (Look for WIDE QRS & No Q Wave V6)
- Patients with a functioning pacemaker (Paced ECG)

BLUE CALL:

- Please state "Blue to **Cardiac Cath Lab with CONFIRMED STEMI by 12 lead ECG**
- Give ETA
- Male or Female
- Age
- BP, Heart rate
- 12 lead ECG details i.e. Anterior/Inferior/Lateral MI

NB: If carrying out a "Critical Transfer" from another hospital to a cardiac cath lab place "Blue call" on leaving hospital – Patients should be monitored with the FR2 until they reach the cath lab.

Hospitals providing Primary angioplasty:

Harefield	Hammersmith	St Mary's
London Chest	St Thomas	St George's
The Heart	Royal Free	Kings

Direct to “Heart Attack” centre

Clear and agreed guidelines

For both hospital and ambulance service

24/7 access

One point delivery

straight to lab!

Shared & open information to all involved

Ambulance service

Emergency departments/CCU/Cath Lab

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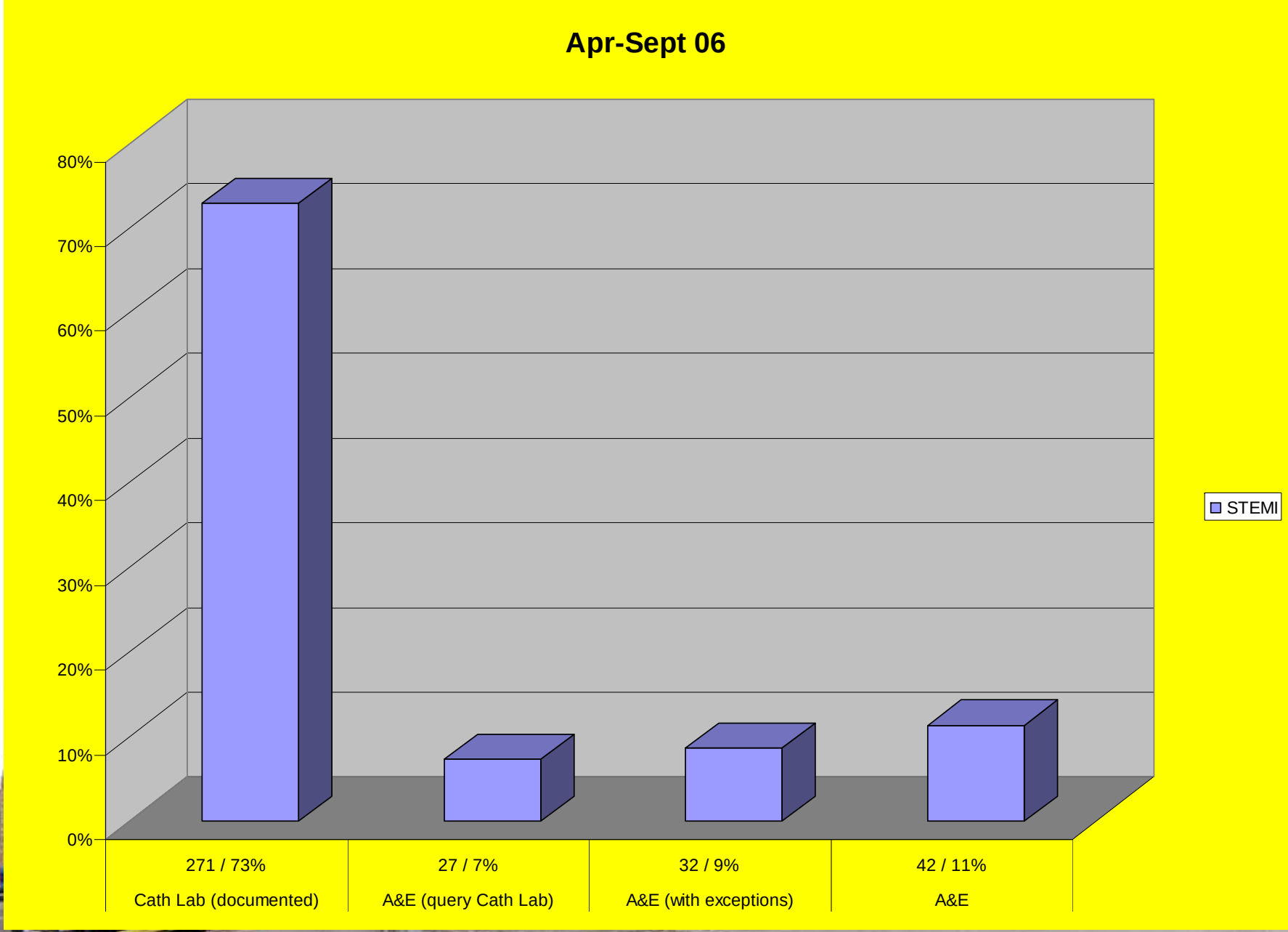
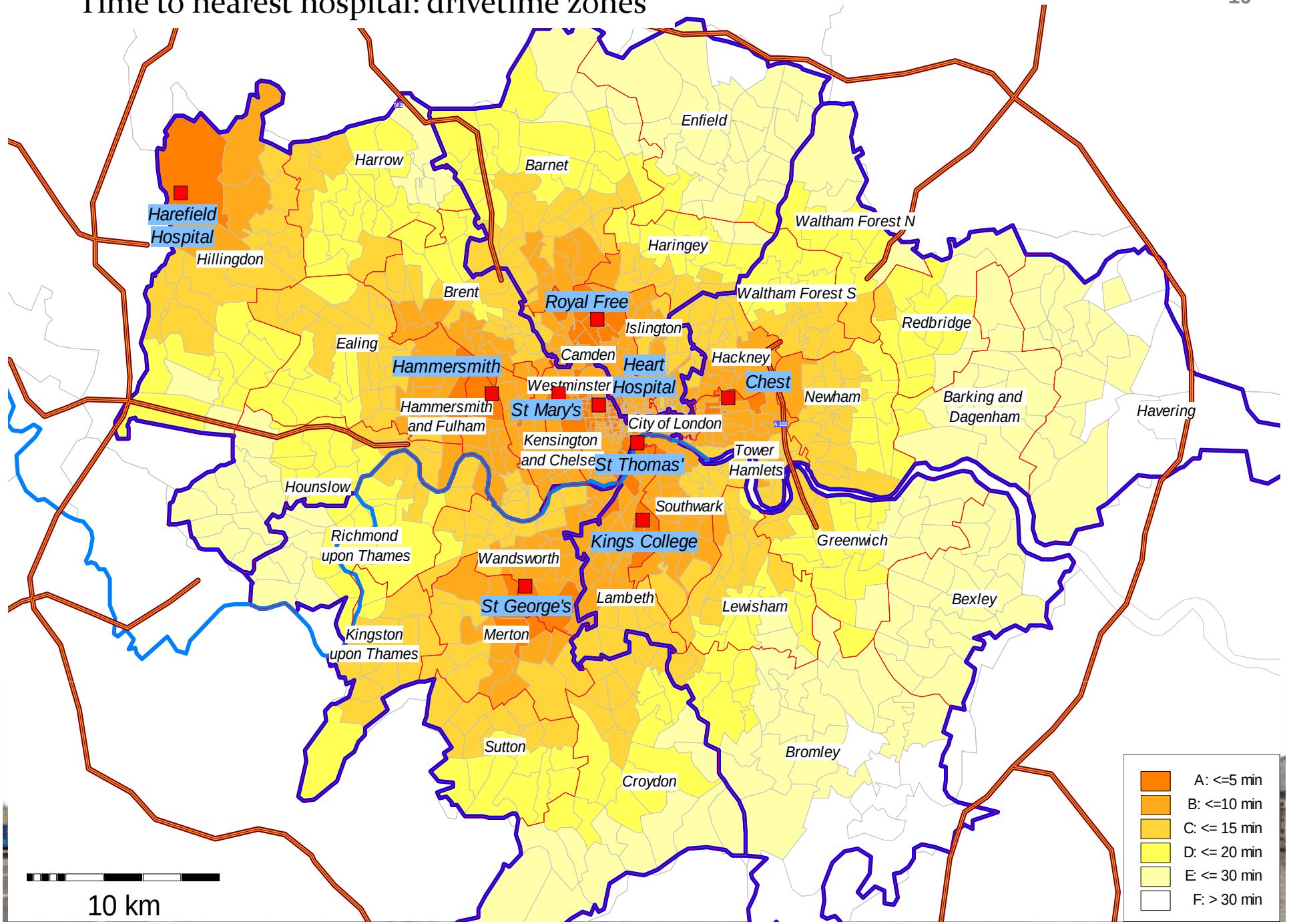

Apr-Sept 06
80%
70%
60%
50%
40%
30%
20%
10%
0%
STEMI
271 / 73%
Cath Lab (documented)
27 / 7%
A&E (query Cath Lab)
32 / 9%
A&E (with exceptions)
42 / 11%
A&E

Time to nearest hospital: drivetime zones



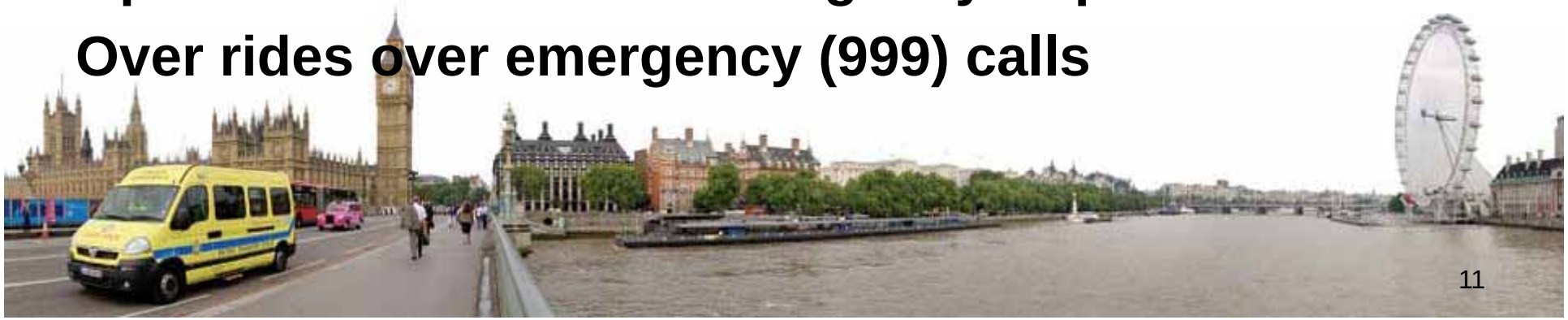
CRITICAL TRANSFERS

One telephone number Pan London

Rescue and Primary Angioplasty only

Open to all CCU's and Emergency Departments

Over rides over emergency (999) calls



Efficiency of service delivery

249 PPCI

• Call to Balloon	121mins	Target 120 mins
• Symptom to balloon	200mins	
• LAS transit time	18mins	Target 30mins
• LAS diagnostic accuracy	**87.4%**	Target >75%
• Serious misdiagnosis	1.12%	Target <5%
• MACE	11.9%	
• Mortality	4%	

Current position;

999 call to arrival on scene	Average 8 minutes (range 3-26)
On scene to leaving scene	Average 34 minutes (range 14-59)
Leaving scene to arrival at hospital	Average 16 minutes (range 2-41)

Currently 86% of STEMI's are taken direct to a cath lab with the remaining 14% going via an A&E department due to crews unsure about the initial ECG

The LAS is leading the way in the care of acutely ill patients

Thank you

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