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The Ambulance Response Programme Building the evidence

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WHY?

"Since 1974 time-based ambulance response standards have been used to drive improvements and maintain response times to the most critically ill. However these targets have gradually led to a range of operational behaviours that undermine the effectiveness of the ambulance service and patient experience."

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- Dispatching before problem known
- Multiple vehicles to same patient
- Sending RRV's to "stop the clock"

- Repeatedly standing down vehicles
- Long waits for transporting vehicle
- Long waits for green calls

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Phased Programme

1. Short pre-triage to identify life-threatening calls (Nature of Call)
2. Additional triage time (180-300 seconds) and dispatch of most appropriate response (Dispatch on Disposition)
3. Review and trial of new call categories (matched to response & resource type requirement)
4. Review of performance and clinical quality indicators

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Evaluation – sorting the wheat from the chaff

Efficient?
Effective?
Safe?
Acceptable?

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October 2014 – September 2015	DoD implemented (Phase 1) Feb2015 (2 services) Oct 2015 (4 services)	Coding trial (3 services) Phase 2.1 April – Oct 2016 Phase 2.2 Oct-Dec 2016	All services DoD Oct – Nov 2016
		Coding trial	Coding trial
	DoD	DoD	DoD
Business as usual	Business as usual	Business as usual	

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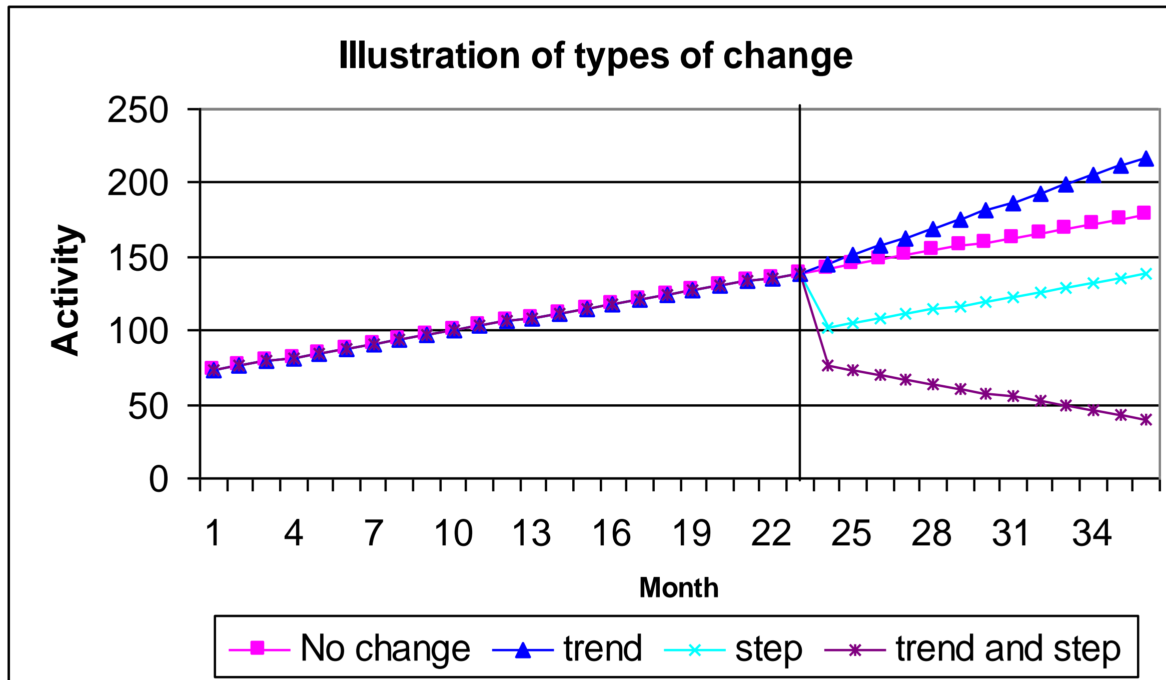
Controlled time series analysis of change in trends (Oct 14 – Mar 15)

1) in individual DoD sites

2) in combined DoD sites compared to combined control sites



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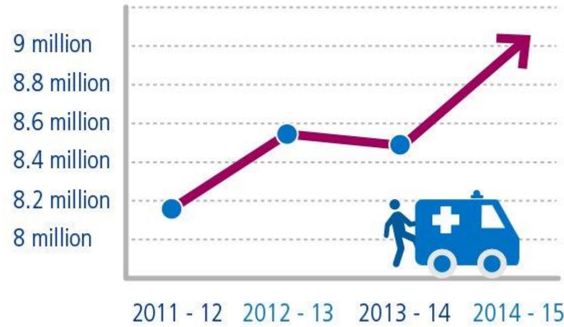
Number of calls to 999

NHS England



Since 2011, the number of calls to 999 has risen by over 840k per year.

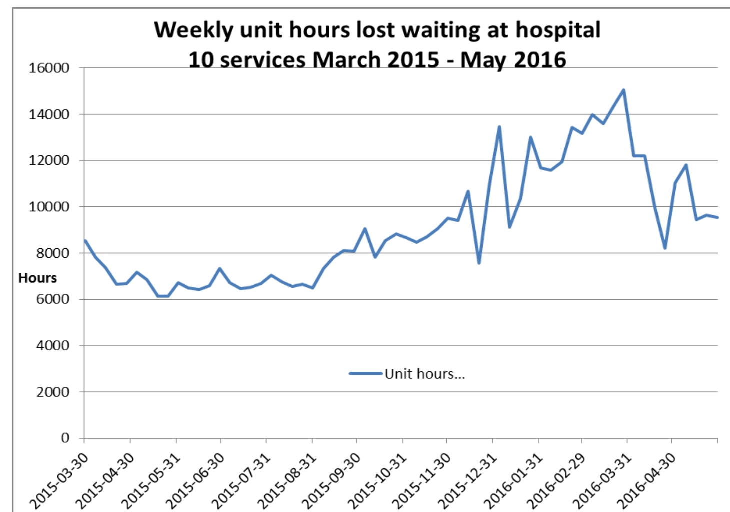
*Source: data.gov.uk

#Team999

Impact of DoD on:

- Resource allocation
- Allocation times
- Response times
- Triage complete
- Hear & treat

Confounders



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Phase 1

30 indicators measured

- Increased efficiency – reduction in resource allocation across all indicators
- Nationally significant resource gain at time of call
- Improved R2 performance – additional triage time does not result in longer response time
- Substantial reduction in DX014 (NHSP sites)
- Significant increase in clock start at CC/DX code (using 180 seconds triage time)
- No safety concerns

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NoC

Pre-Triage Sieve Questions	
	Is the patient breathing?
	Is the patient awake?
	Is their breathing noisy?

73% of cardiac arrests identified as Red 1

90% identified in just 5 descriptors

Red 1

Unconscious (normal breathing)

Breathing problems

Death unexpected all ages

Chest pain

	Descriptor/Comments
RED 1 NOC CODES	Choking
	Drowning/Water Incident
	Fall Unconscious
	Ineffective breathing
	Life Status Questionable
	Maternity - Head out/Visible/ Complications/Multiple Births
	Overdose Unconscious
	RED 1
	RTC Unconscious (or arrest/fatal)
RED 2 NOC CODES	Allergic Reaction
	Serious Bleeding
	Breathing Probs
	Severe Burns
	Chest Pains
	Electrocution/Shock
	Fitting
	Pregnancy
	RTC ejection
	Gunshot or stabbing
	Stroke
	Unconscious (not noisy breathing)
	Operation Plato
	Operation Consort
	Running Call
	Majax Declared

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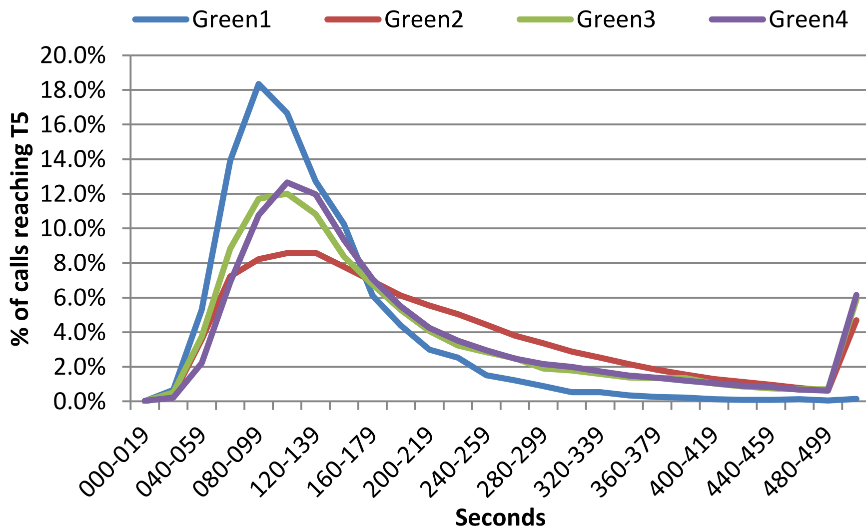
>75% T5 by 180 seconds
>90% T5 by 240 seconds
Marginal gains past 240 for Red calls
Small for Green (though larger in NHSP)



240 seconds chosen as optimum time to balance sufficient triage time against clinical risk of “missing” serious calls where assessment is complex

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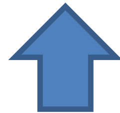
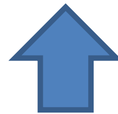
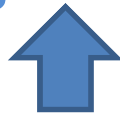
Staff survey

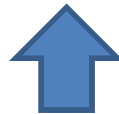
Online survey Dec 15-Jan 16
for 6 DoD sites
584 responses

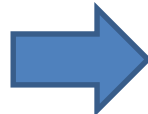
Identification of R1 

Identification of other calls 

Effectiveness of triage & resource allocation 

Stand downs

Better demand management 

Job more effective 

- Overall viewed as positive step forward
- Shortcomings of triage systems and number of Red calls
- Behaviour change particularly for EOC – holding back on allocating
- Fewer stand downs positive – public perception
- Need for more clinicians to increase H&T

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Phase 2 – Call category trial

- Better alignment of response to clinical need – urgency (time), resource type, clinician & treatment
- All AMPDS and NHSP codes allocated to new categories
- Phase 2.1 – Red; Amber; Green with subcategories
- Amber category too large
- Phase 2.1 – Categories 1 – 4 with more discrimination of mid range

Currently:
Red (8 minute) 50% of call volume
OOHCA 0.6%
Emergency ~ 10%

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A summary of the trial code set

- Category 1:

Immediately life threatening: cardiac arrest and threatened cardiac arrest. Resuscitation often required.

- Category 2:

Emergencies requiring assessment and treatment, +/- transport:

C2T: Assess, treat, transport

C2R: Assess and treat

- Category 3:

Urgent problems requiring treatment to relieve suffering and/or timely transport

C3T: Assess, treat, transport

C3R: Assess and treat

- Category 4:

Non-urgent

C4R: Assess and treat +/- transport

C4H: Non-ambulance response ("hear and treat")

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3 sites

2.1: Apr – Oct 16

2.2: Oct – Dec 16

Range of descriptive time, allocation & resource utilisation indicators measured by category in trial sites

Range of “whole service” indicators to compare against control group

Response time

H&T rates

Conveyance rates

Job cycle times

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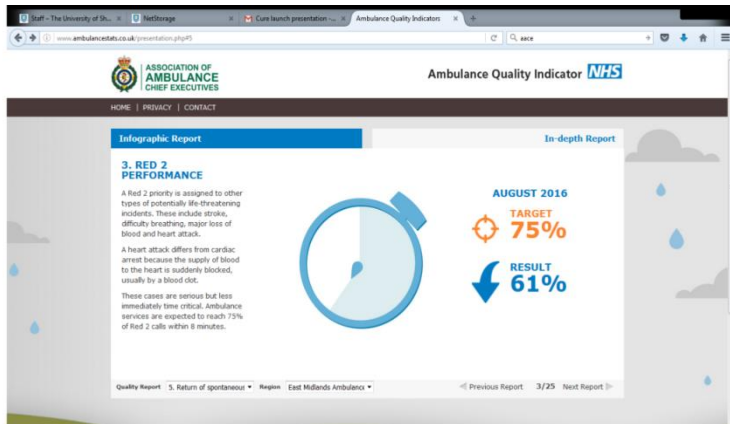
Performance indicator review



AQI

Align to new categories

Review existing indicators

Recommendations for new measures – transparency, clinical focus, reflect whole service delivery

CQI

Revise current indicators

Expand range of conditions/groups as part of rolling audit cycle

Better integration with NCAQG

Performance and quality measurement needs long-term framework; regular review; ongoing development

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Consensus Approach

Multiple stakeholders – clinicians, managers, commissioners, audit, research, information, policy, patients

2 Day workshop reviewing and scoring potential evidence derived indicators

Additional sorting to derive short term AQI changes

Overseen by ARP Development Group

Report setting out recommendations for current AQI revision and case for long-term development and review framework

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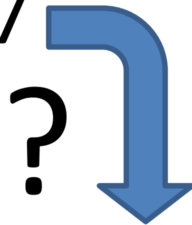
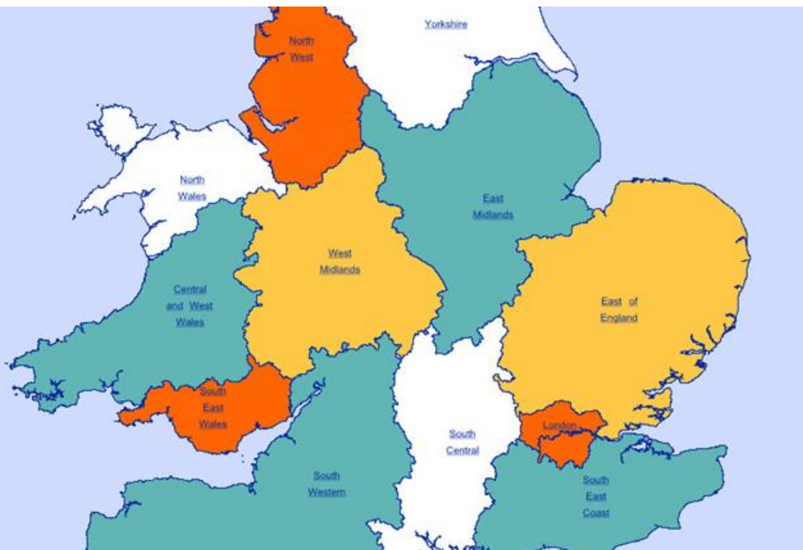
Next steps

Report due February 2017
Consideration by NHSE & DH
Decisions on call category
roll out spring 2017

?





Biggest fundamental change in operational delivery for 20 years.
Responsive to clinical needs of patients.
“Success” measured on right response & clinical outcomes

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To all services:

Particularly Information Management, Business Intelligence, Clinical Audit

For returning weekly data over the last 16 months

A truly collaborative effort

THANK YOU

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