kinetik solutions

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Lean Midland Forum

16 October 2013
Education Centre, Good Hope Hospital



We have some broad aims of the forum

- Create the environment where Lean Solutions in the NHS are shared, discussed and acted upon by practitioners in the health service
- Engage in a debate about strengths and weakness of lean/service improvement methods in the current NHS climate
 - The QIPP agenda in reducing costs across the health system
 - Clinical Commissioning Groups that will redefine 'end to end' health systems processes
- To network with colleagues and friends



Solutions

Agenda

- 1800 1810 Welcome and introductions
- 1810 1835 "Improvement; Infection; Impossible? Dr Mathew Diggle (Consultant, Nottingham University Hospitals NHS Trust)
- 1835 1900 "How effective use of SPC in the NHS results in better decision making" – Mike Davidge (Director, NHS Elect)
- 1900 1930 Hot seat session
- 1930 2000 Networking and drinks





Where?

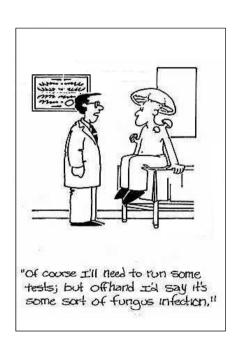
Clinical Microbiology Department
Nottingham University Hospitals NHS Trust
Queens Medical Centre
Derby Road
Nottingham
UK
NG7 2UH
http://www.nuh.nhs.uk/microbiology/





The Nottingham Experience

- Diagnostic service: 24/7, 365 days per year
- Population served: >2.5 million (> 5 million)
- Workload: 970,000 pa (> 1.8 Million)
- Isolation, identification and detection of
- medically important bacteria,
- viruses and parasites.





And now for something completely different...



NHS Improvement - EM SHA Microbiology Sites

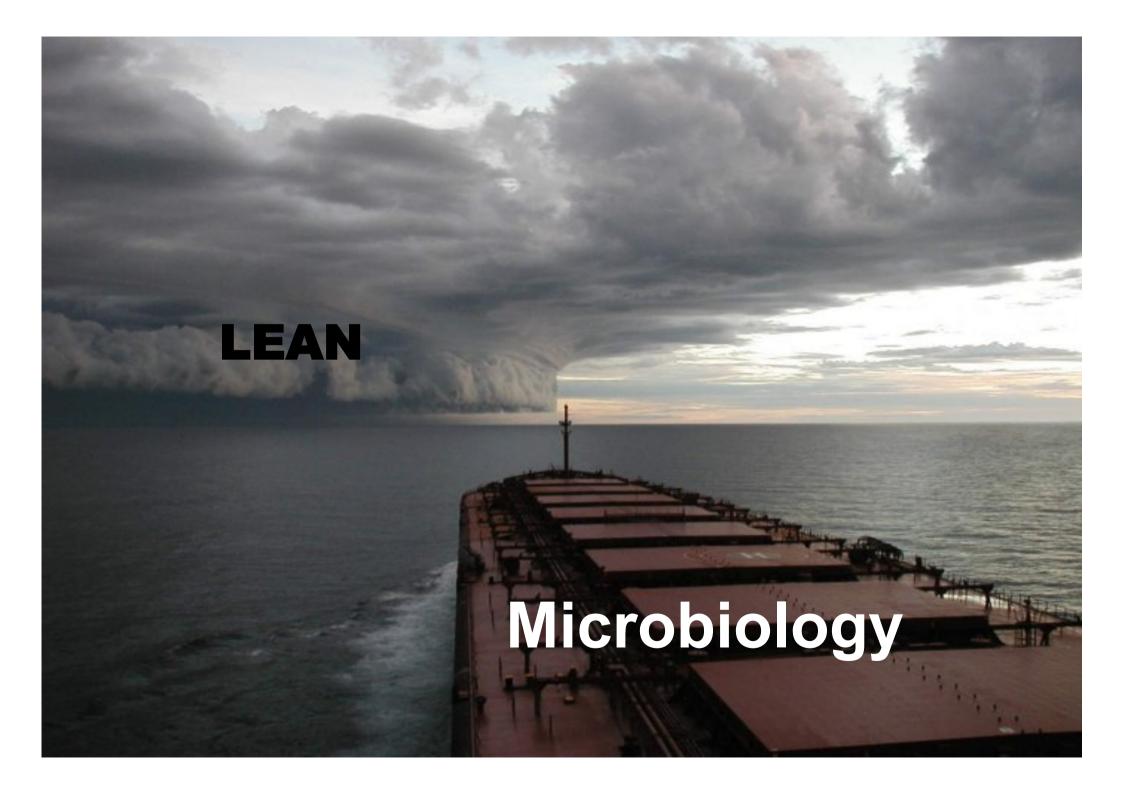
East Midlands SHA sites and leads:

- Nottingham University Hospitals NHS Trust Clinical Lead: Dr Mathew Diggle
- Derby Hospitals NHS Foundation Trust Clinical Lead: Dr Farah Yazdani
- University Hospitals of Leicester NHS Trust
 Clinical Lead: Dr Andrew Swann
- Kettering General Hospital NHS Foundation Trust Clinical Lead: Dr Essam Rizkalla
- Northampton General Hospital NHS Trust Lead: Andrea O'Connell
- North Lincolnshire & Goole Hospitals NHS Foundation Trust (Path Links)
- Clinical Lead: Dr Peter Cowling
- Chesterfield Royal Hospital NHS Foundation Trust Lead: Trevor Taylor
- Sherwood Forest Hospitals NHS Foundation Trust Clinical Lead: Dr Shrikant Ambalkar



LEAN?

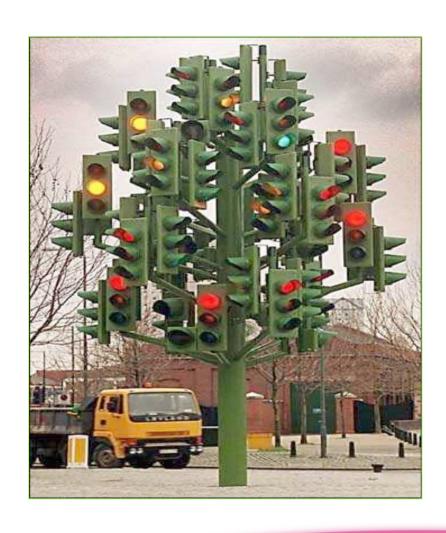






What the.....





Report of the Review of NHS Pathology Services in England

Chaired by Lord Carter of Coles



An Independent Review for the Department of Health

the service needs to be developed to meet people's changing expectations with regard to high quality, safe and efficient health care services, delivered closer to home;

the service needs to be redesigned and streamlined around people and the main users' requirements for pathology-based investigations;

the service needs to embrace competitiveness and plurality of provision and a commissioner-led focus;

the service requires strong local clinical leadership and a business orientated management infrastructure;

the service needs to focus on productivity through matching the workforce not only to activity and workflow, but also to the roles and functions that are needed to deliver it; through improving systems and processes and realising the benefits of new technology, with faster adoption;

the core information required to enable the service to be run efficiently and effectively needs to be defined, and steps taken to collect, record and use such data;

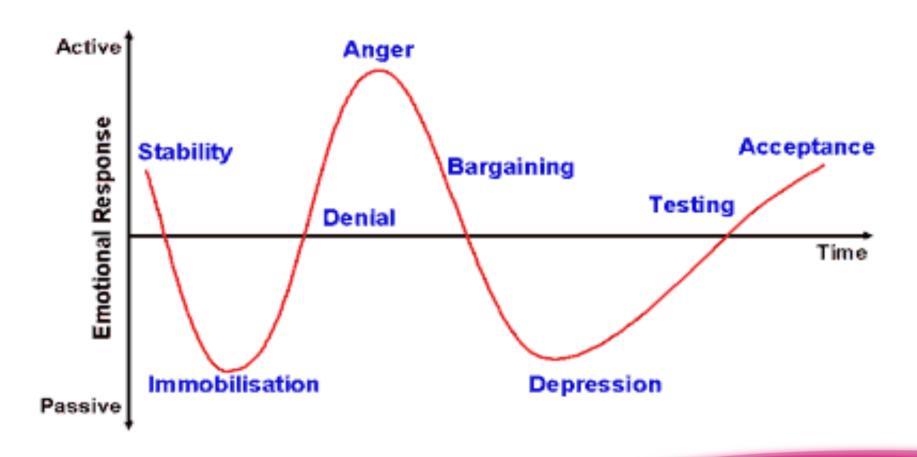
the service needs to be recognised as a core clinical service in relation to its impact on the patient's journey and therefore should be planned, commissioned and delivered as part of an integrated health care system.

Department of Clinical Microbiology

We are here for you



The Path-ology



The Project

NHS Improving Quality

Welcome to the NHS Improvement System

A comprehensive online resource to support quality improvement in NHS Services

Publically available tools and information on practical service improvement and clinical pathway redesign are available on the NHS Improving Quality website

Additional FREE Tools and Resources

Staff working for NHS Organisations in England can also logon to our FREE NHS Improvement System for additional tools and resources

Featuring project management, measurement and knowledge exchange tools, the NHS Improvement System provides a comprehensive, online improvement resource.

Developed to support every stage of an improvement initiative from project initiation through to delivery and subsequent sharing of knowledge outcomes, resources and case studies with the wider NHS. Used for both local and national projects across whole health economies, networks and provider organisations

Features Include:

- Projects Module
- Document Store
- Knowledge Exchange
- Google Search Facility
- Service Improvement Tools and Resources
- Contacts
- Forums
- Improvement Messaging

- Measurement Tools
- Statistical Process Control
- Demand and Capacity
- Quick Tools
- Patient Pathway Analyser
- Data Collection System

The NHS Improvement System is free to use for all staff working for NHS Organisations in England. If you wish to access the system please register for a user ID using the 'request login' option on the right.

If you are not working for an NHS Organisation in England you may still be able to gain access, to find our more please contact us at support@nhsig.nhs.uk





NHS Improving Quality

HOME PROJECTS ▼ TOOLS ▼ KNOWLEDGE ▼ MY PROFILE ▼

Home - Project list - Project - Project summary - 2011 Microbiology National Projects - Nottingham

Go back I Clo

Generate Report Project control Summary Tasks Progress II Measures Improvements Documents Forum Edit Summary Files I'm working on 0 files locked for editing What's new All members access to system Overall progress progress Collaborated with a film Urines - members satisfied with path crew to film the entire Improvementsystem pathway of a sample within Contact high volume users Ill core team to complete the urines pathway the laboratory Risk plan presented to OMG/SMT 31 October 2012 at 11:31 Complete VOC Interviews Communication plan created progress Creation of a large Urines - Complete A3 current state view dashboard. This will focus Communications plan on a single speciality in Urines - PSC available Current state A3 complete the laboratory and provi... Urines - Availability of VSM 31 October 2012 at 11:29 Current state Process sequence charts Communication centre active Current state - Value stream map - urines progress Streamline of processes VOC/E optimised and available on D bench Communications cente Urines - Action plan drafted 31 October 2012 at 11:25 vVoice of the customer/Employee Interlevs questionnaires with OMG and SMT 15 days MRSA - Complete A3 current state view progress Pre-analytical processing Future state - Data generation in Serology Create Microbiology Action Plan MRSA - Complete A3 current State view 31 October 2012 at 11:22 Centaur/Liaison - Complete A3 current state view ate and Maintain a microbiology Action Plan CF testing - Complete A3 current state view aun/Liaison - Complete A3 current state viel My Favourites Reception - Complete A3 current state view CFtesting -Complete A3 current state view Add new favourite Reception - PSC available Reception A2 Storage - Improve the order and flow Reception PSC 88 days Sample Splitting audit Assess storage facilities 66 days Review comunication boards Audit data available Reception - reorganise to support ICE men Reception reorganisation to support ICE Reception-Virology/Serology Review and update communication boards

Nottingham University Hospitals NHS Trust

The "C"s.....

Challenges

- Collaborations
- Consolidation
- Competition

EM SHA Pathology Improvement Programme

Progress during last month

Progress from 01/09/2012 to 31/10/2012

Progress from 01/09/2012 to

Progress from 01/09/2012 to 31/10/2012

31/10/2012

Progress from 01/09/2012 to 31/10/2012

Pre-analytical processing in Serology

Streamline of processes on D bench

Creation of a large dashboard. This will focus on a single specialty in the laboratory and provide a wide range of information, including number of samples/tests carried out, error rates, champions on the month, interesting facts (E.g. the highest volume of tests was on this day or the lowest error rate was on this day - well done!)

Collaborated with a film crew to film the entire pathway of a sample within the laboratory

Key actions and next steps

Key actions	As a result there is no longer a rush to label up samples last thing at night, as we have demonstrated those same samples can be processed whilst the analysers are being QC'd in the morning, some MLA staff should become available to bacteriology at the end of each working day							
Key actions	Significant improvement in the way samples are processed, giving time for staff to focus on quality. As a consequence reduced errors are now being identified. These measurement are in progress							
Key actions	Improved communication and awareness of all the staff towards everyone else's tasks and performances							
Key actions	Great way to educate and make aware of the complexities and challenges of the microbiology laboratory. in addition to focus on the important issues and the ways in which our colleagues who use our service can help maintain quality and efficiency across the patient pathway							





Trust

The Trust Equation

Weighted Delivery on expectations

Clarity of Usefulness of expectations x feedback

We are here for you



National Pathology Programme NHS Improvement Guide

Service improvement in microbiology: why, what and how













"Clinical excellence in partnership with process excellence"

http://www.improvement.nhs.uk/documents/Microbiology Guide.pdf

CASE STUDY

Stop to fix - immediate leadership action

Nottingham University Hospitals NHS Trust

Summary

Changes were made to specimen reception in two phases. The second phase introduced date/time stamping of every sample without initially redesigning the process or the work area to accommodate the additional task.

The entire reception team disengaged completely and the process quickly deteriorated to a crisis situation.

Senior colleagues reacted quickly and worked alongside reception staff to understand the process and agree the necessary redesign.

Understanding the problem

A number of issues relating to specimen reception required improvement to aid specimen flow

- Lack of standard work morning and afternoon staff arranged the work area in different ways
- Messages regarding urgent specimens were captured on scraps of paper and could be lost or overlooked.

The majority of deliveries occur in the afternoon. Several staff were trying to help with the unpacking and sorting in a very small space. Samples were observed literally flying around the room!

How the changes were implemented

The Lean core team began by observing the process and measuring:

- Timing of deliveries along with the specimen volume peaks and troughs
- Number of specimens requiring more than one test either in microbiology alone or microbiology and another pathology discipline
- Spaghetti mapping the movement of staff, samples and request forms into, around and out of the area revealing multiple trips to an office area to access a photocopier which required the removal of laboratory coats and gloves each time.

In the first phase of improvements:

- A bench top photocopier was purchased and installed in specimen reception
- A standard layout was sketched out and posted on the wall in the area for every staff member to review and critique
- After a reasonable period of time the agreed layout was put into place – the bench was marked out with tape. Boxes were labeled with the bench destination and a clearly labeled 'in' tray was placed for porters and service users to deposit samples in
- Additional sorting boxes were added for urines (GP and hospital) and MRSA (screening and multiple swabs) to front load the process and remove the further sort being carried out at the benches

- A white board was installed to hold van delivery information, duty medical staff telephone numbers and record messages regarding urgent samples
- The area was 5Sd with a number of items being moved to more appropriate areas and a trolley located to store required items under the bench to free up space
- Data showing peaks and troughs in deliveries was made visible along with a schedule for visits to main specimen reception to collect samples.

Small changes like the installation of the bench top photocopier made an enormous difference to staff engagement eliciting the comment "Lean helps get things done that we have been asking for for years."

In a later second phase of improvement, the specimen reception staff were asked to add the date and time stamping of every sample form to enable the service to accurately monitor end to end process performance and demand over time to meet a CPA requirement. A stamping machine was installed but the process and work area layout was not changed.

This change received a very negative response with comments like "people are now avoiding reception as it's so difficult to work in there at peak times." Staff members attributed this change to "Lean" and the situation quickly spiraled downwards to a crisis point where specimen turnaround times were being impacted with work carrying over to the following day.



Thank you!

How effective use of SPC in the NHS results in better decision making

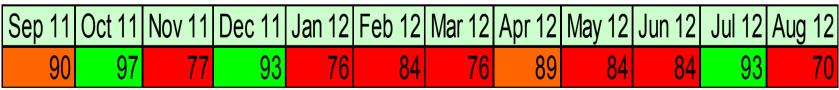
Mike Davidge



How we assess performance: RAG ratings

KEY PERFORMANCE INDICATOR SUMMARY - BO	AND	Torget	Actual TEMBER D	RAG Rating	Target Fercust Ratio		
Substant Datio		74.5		***	_		
To Balance Income and Expenditure (reported as Camulative	b b com	030	6131	Red	60	- 60	
		\$130	E134	Rand	D0	EG.	
To Operate within the Estavaul Financing Limit	Your find Target				60	60	
To Operate within the notified Capital Resource Limit	Under/(Over) shoot target	.00	400		69	60	Green
Capital Cest Absorption Rate between 3% and 4%.	Your find Target				3.50%	3.50%	Green
Use of Havenerous							
	Overall Rating				3	3.	
Better Payments Practice Code							
Nes-NHS creditors expressed as a % where rules of invoices		98%	63%	Red	95%	90%	
paid is within 50 days	In Mosth %	98%	97%	Red	95%	95%	
Non-NHS creditors) expressed as a % where volume of	Cumulative %	98%	96%	Red	95%	90%	
involves paid is within 30 days	In Month %	99%	85%	Red	95%	95%	
Revenue Key Performance Indicators Arbitroment of Plan HITTIA - (100) (Excluding Brest, Even Daty Paraling)		64,171	64,225	Green	47,779	49.217	Green
EBITDA % of plus achieved	Monitor Financial Risk Indicator	100%	300%		100%	190%	
Indicative Financial Risk Rating		- 5	. 5	Auden	5	- 1	
Underlying Performance							
EBITTOA % (Excluding Break Even Duty Funding)	Monitor Financial Risk Indicator	6,73%	6.65%	Amber	6.31%	6.45%	Armhy
Indicative Financial Risk Hating			,		- 3	- 3	
Financial Efficiency				_			
ME Surplus(Deficit) margin net of PDC - £'000	Monitor Financial Risk Indicator	6131	0.21%		E0 0.80%	4.00%	
Ski Surphus(Deficit) % margin net of PDC Indicative Financial Risk Batter	Monitor Promotel Kisk Indicator	0.21%	0.21%	Green	0.00%	0.00%	Germ
Indicates Pirarcial Risk Bating Balance Short Key Performance Indicators				Green			Carren
Statute Sheet Key Performance Indicators							
Surplus / (Deficito before PDC - 4700)		61.064	61.661		43,000	43.000	
Surplus / (Delicit) below PDC - £'000 Total Assets Employed		698,279	£1,001 £75,456		435,000	£31,900	
Return on Assents % excluding PDC	Monitor Financial Risk Indicator	1.74%	2,39%	Green	3.21%	1.74%	Green
Indicative Financial Risk Rating		1,74%	2.000	-	2214	2.4%	Gerran
Liquidity Key Performance Indicators					_	_ ^	C. Carrier
Estimated Liquidity Ratio - dep-(1)					22	24	Grown
Indicative Financial Risk Bating	Monitor Financial Risk Indicator				- 1	- 24	Green
Secure Ratio	Current Assets / Current Liabilities		0.97	Green		1.04	Carren
Onick (Acid Test) Ratio	(Current Assets Ions Stock) / Current Lightities		9.75	Arrest		0.83	- Armini
Debice Dons	NHS & Trade Debions / Income v 368		10.77			14.47	Green
	DATE OF THE DESIGNATION OF STREET					14/47	Carrier
Estimated Financial Blok Bating							

Education Provider Name Specialty Health Programme	Birmingham City University (BCU)	Coventry University	Keele University	University of Birmingham (UoB)	Staffordshire University	University of Wolverhampton	University of Worcester	Aston University	Birmingham Metropolitan College (BMetC)
Nursing: Adult Degree	73%	68%	88%	68%	64%	88%	68%		
Nursing: Adult Diploma	78%	68%	88%	64%	68%	88%	68%		
Nursing: Child Degree	78%	58%	73%	94%	58%	64%	69%		
Nursing: Child Diploma	83%		78%		58%	63%	71%		
Nursing: Mental Health Degree	68%	58%	94%	80%	68%	78%	58%		
Nursing: Mental Health Diploma	78%	58%	94%		68%	78%	68%		
Nursing: Learning Disabilities Degree	64%		82%						
Nursing: Learning Disabilities Diploma	58%	68%	84%			68%			
Midwifery Degree	73%	73%	94%		88%	68%	68%		
Midwifery Degree (Short Course)	69%	90%			83%	68%			
Operating Department Practitioner Degree		84%							
Operating Department Practice Diploma	78%				68%				
Physiotherapy Degree		74%	84%	100%					
Physiotherapy Postgraduate				90%					
Diagnostic Radiography Degree	68%								
Therapeutic Radiotherapy Degree	68%								
Psychology Doctorate		100%		94%	88%				
Paramedic Science	100%	100%			100%		100%		
Speech and Language Therapy Degree	78%								
Audiology Degree								82%	
Podiatry Degree									78%
Dietetics Degree		84%							
Occupational Therapy Degree		78%							
AVERAGE Score (Mean of all Education Provider programmes):	74%	76%	86%	84%	74%	74%	71%	82%	78%



Why has performance deteriorated so badly in August 2012? What decision are you going to make?



Performance Overview – April 2013

Indicator	YTD Perf Vs Target	Perf Trend - Sustainability (latest 3mths)	Exception Report Produced	Perf View on Quality of Plan	Improve- Date set by Owner/In-Month Performance	Target Owner	Risks/Comments and likely delivery against Improvement date	Position vs. last month & PMO Monitor
NoF	G	G	Not required	Not required	G	СН	Patient Safety Perf Notice Rec Loss of Income in 2012 Improvement Date slippage	
A & E - 4 hours	R	R	G	Not required	G	СН	Patient Safety Perf Notice Rec Loss of income in 2013/14	
A & E - CQIs	А	А	G	А	А	СН	Patient Safety Perf Notice Rec Loss of Income in 2013/14 CQC visits Regulatory issues	
Stroke Unit - 90%	G	G	Not required	Not required	R	СН	Patient Safety Increased risk of perf measures. Feb has met target – and sustained	
HSMR	G	G	Not required	Not required	Not Req'd	RC-H		
CDiff	А	Α	G	Not required	R	СО	Patient Safety CQC/Regulatory Issues	
						•		EIECT

Follow up metric

Indicator description	2012 /13 Annual/Year end Target	r Q1	Monito r Q2 Return	Dec	Monito r Q3 Return	Jan	Feb	RAG	YTD Target	YTD Actual	YTD RAG & 12 month Trend
Receiving follow up within 7 days of discharge (all discharges)	95%	96.7%	96.2%	97.4%	96.5%	96.9%	97.6%	•	95%	96.7%	•

What you get presented with

What do you decide to do?



A&E performance

Area

- Minor attendances
- Thursdays
- Q3 2004/05

Verdict: Ok?

Performance

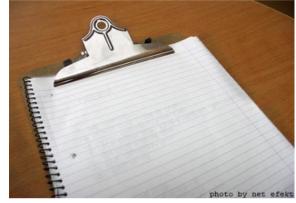
• 96.9% seen and discharged within 4 hours



In the real world, everything varies....

How long does it take you to get to work?





How many patients need a home visit today?

How long does it take to take a patients BP?







What's a person's normal body temperature?

NORMAL BODY TEMPERATURE RANGES

°F	0 - :	2 years	3 - 10 years			11	- 65 y	ears	> 65 years		
Oral	-	-	95.9		99.5		97.6	99,6	96.4	98.5	
Rectal	97.9	100.4		97.9	100.4		98.6	100.6	97.1	99.2	
Axillary	94.5	99.1	96.6	98.0		95.3	98.4		96.0	97.4	
Ear	97.5	100.4	97.0		100.0	96.	6	99.7	96.4	99.5	
Core	97.5	100.0	97.5	5	100.0		98.2	100.2	96.6	98.8	





"Data contains both signal and noise. To be able to extract information, one must separate the signal from the noise within the data."

Walter Shewhart

°F	0 - :	2 years	3 -	10 yea	ars	11	- 65 y	ears	> 65 y	/ears
Oral .	_	-	95.9	9	9.5		97.6	99.6	96.4	98.5
Rectal	97.9	100.4		97.9	100.4		98.6	100.6	97.1	99.2
Axillary	94.5	99.1	96.6	98.0		95.3	98.4		96.0	97.4
Ear	97.5	100.4	97.0)	100.0	96.6	3	99.7	96.4	99.5
Core	97.5	100.0	97	.5	100.0		98.2	100.2	96.6	98.8



There are two types of variation

While every process displays variation:

- some processes display controlled variation (common cause)
 - Stable pattern of variation = noise
 - constant causes/ "chance"
- while others display uncontrolled variation
 - pattern changes over time = signal
 - special cause variation/"assignable" cause eg infection or hypothermia

We should display data in a way that shows which is present



Control charts

Control charts

- Plot data in time order
- Calculate and display mean as a line and control limits as lines
- Analyse chart by studying how values fall around mean and between control limits

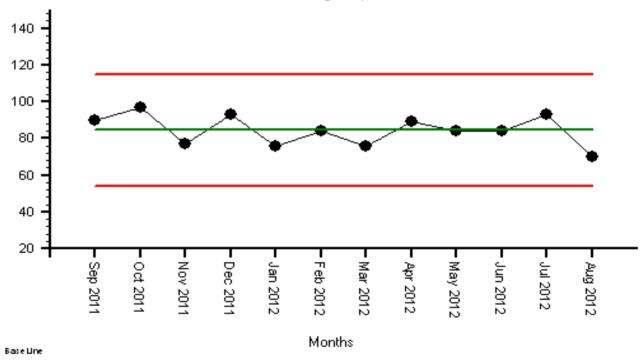




SPC chart of RAG score



Something important

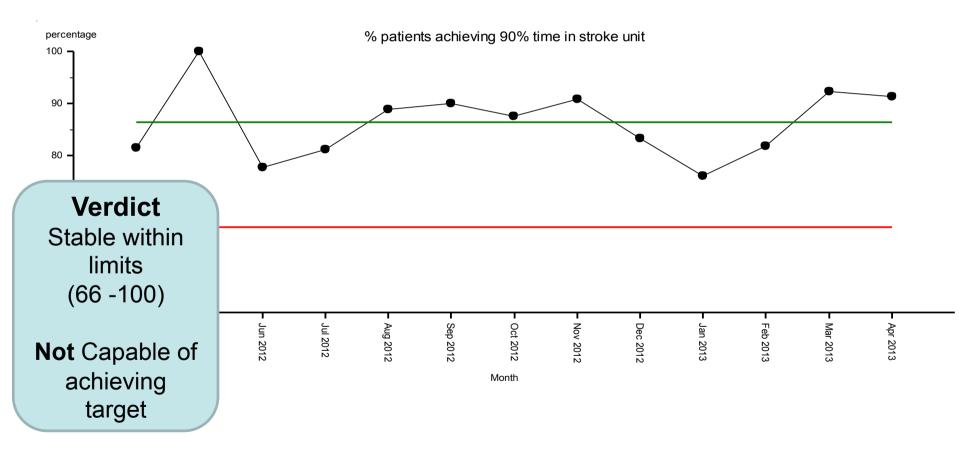




Performance Overview – April 2013

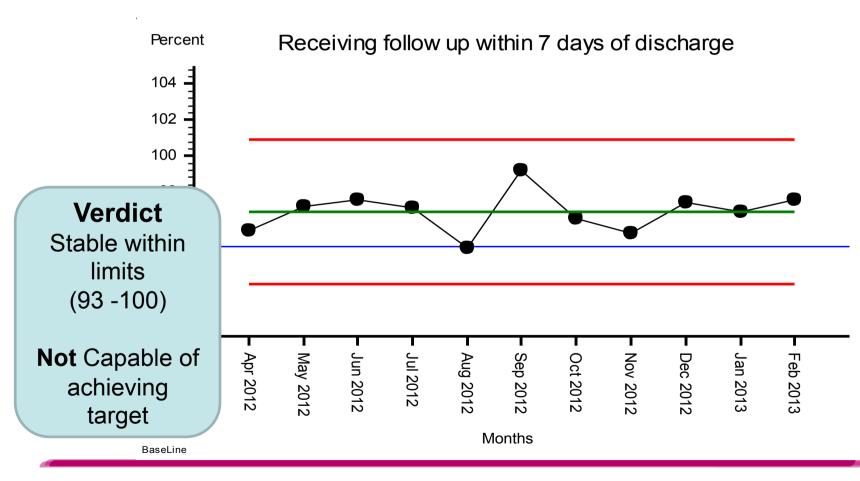
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HSMR	G	G	Not required	Not required	Not Req'd	RC-H		
CDiff	А	А	G	Not required	R	со	Patient Safety CQC/Regulatory Issues	
						I		EIECT

Not so peachy



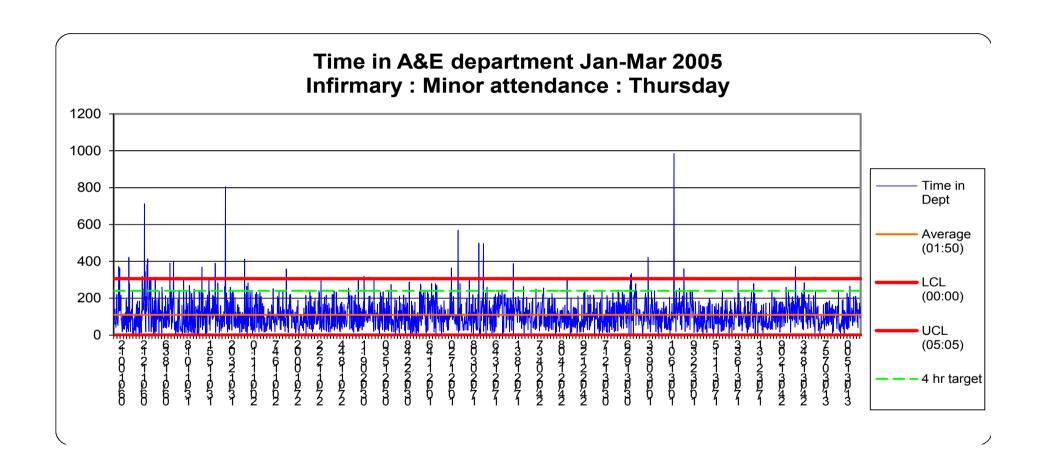


Indicator description	2012 /13 Annual/Year end Target	r Q1	Monito r Q2 Return	Dec	Monito r Q3 Return	Jan	Feb	RAG	YTD Target	YTD Actual	YTD RAG & 12 month Trend
Receiving follow up within 7 days of discharge (all discharges)	95%	96.7%	96.2%	97.4%	96.5%	96.9%	97.6%	•	95%	96.7%	•





A&E – the real situation





The two types of mistake

Mistake One

 Interpreting the routine variation of noise as if it amounted to a signal of a change in the underlying process, thereby sounding a false alarm.

[false positive]

Mistake Two

 Thinking that a signal of a change in the underlying process is merely the noise of routine variation, thereby missing a signal. [false negative]



SPC – do it right

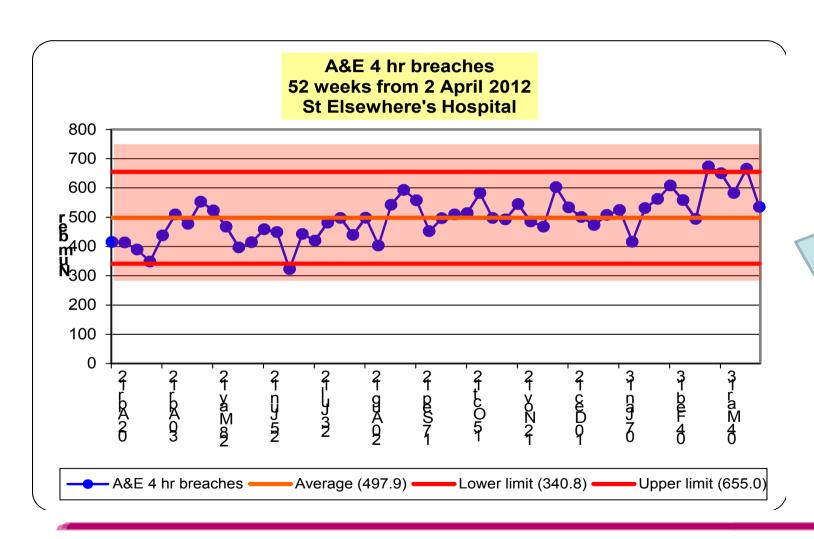
Use the correct way of determining the measure of variation

 Use the correct multiple of variation to derive the control limits

Don't exclude data points just because they're 'odd'



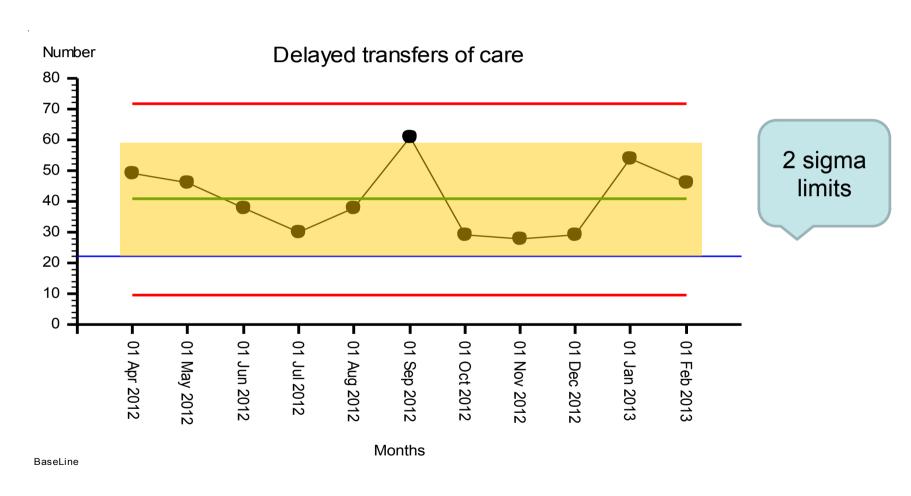
Using the wrong calculation



Shaded area using standard deviation statistic gives lower limit if 272 and upper limit of 723

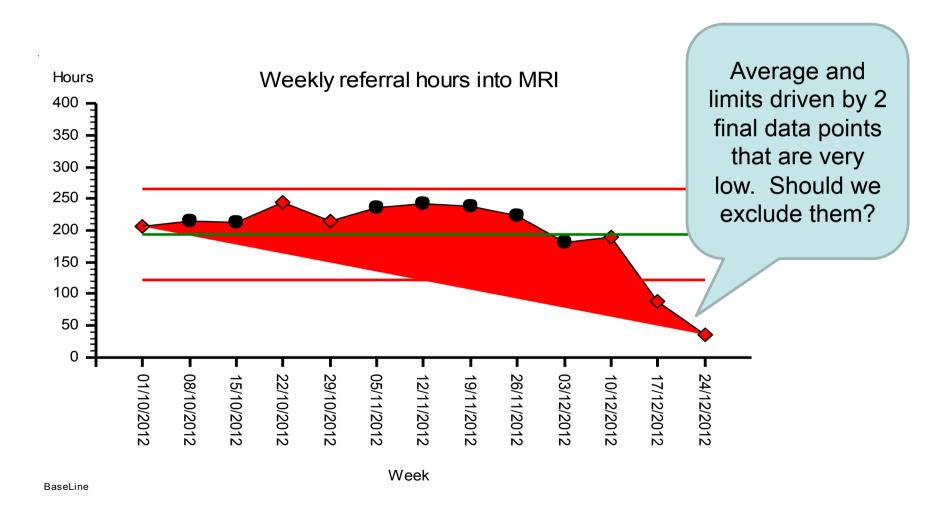


Using the wrong limits



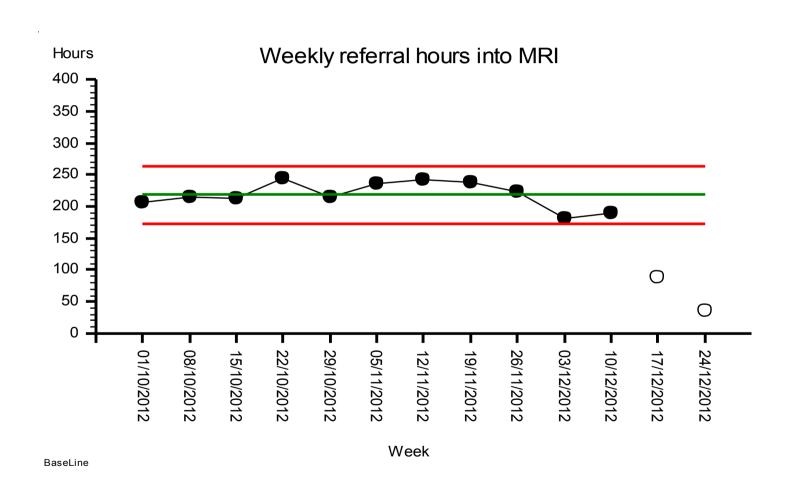


Initial chart with special causes flagged





Modified chart





A proper RAG status

- Green = stable and capable i.e. no special causes and process limits within specification limits
 - Action: masterly inactivity and catlike observation
- Amber = unstable i.e. special causes
 - Action: investigate special causes, diagnose and treat with a countermeasure.
- Red = stable but incapable i.e. no special causes and process limits outside specification limits
 - Action: improve or redesign depending on level of experience/ skill



My final slide: Shipman

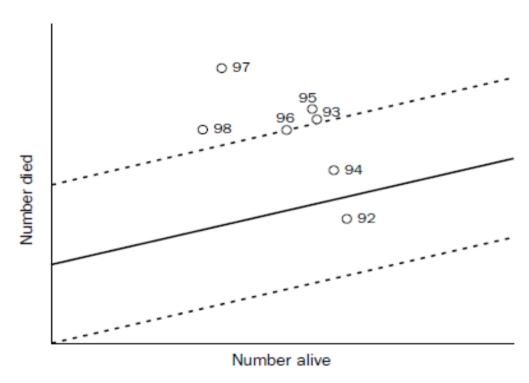


Figure 4: Comparison of Harold Shipman's mortality for women aged 65 years or older in Thameside and Glossop during 1992–98

The three lines indicate the background mortality for women aged 65 years or more in Thameside and Glossop (inclusive of Shipman's patients). Shipman's annual mortality rates are imposed on this.

Source: Malcolm Gall in The Times, 1 February 2000 Taken from "Bristol, Shipman and clinical governance: Shewhart's forgotten lessons" Mohammed et all, The Lancet, volume 357, 2001



Recap – What is Lean?

- Focus on Value from a Customer (Patient) point of view on every step of process
- Obsession on removing waste within the 'whole system'
- Bottom up approach in identifying value and waste assumption that much of waste and value is hidden
- A true lean system would "flow" and need little command and control



What's Next?

- Today's presentation and feedback survey sent out by email within 72 hours
- The Next Lean Midland Forum will be held on 26 February 2014.
 - Register at <u>www.leanmidland.org.uk</u>
 - We will send out reminders to all participants from today
 - We have a Lean London Forum on 5 March 2014 taking place in London. Register at www.leanlondon.org.uk
 - If you'd like to take up one of our presentation slots, please do let us know. We are keen to hear from Community Trust and GP Groups
- Find us on Linked in and







Past Presentations at the Forum

http://kinetik.uk.com/pdf/Lean London.pdf

- 1. The 'Leaning' of Bedford Hospital the story so far, Susan Whittaker, Bedford Hospital
- 2. Future Developments in Lean, Rob Worth, Kinetik Solutions
- 3. Transformation of Camberwell Sexual Health Centre, Rachel Paxford-Jenkins, Camberwell Sexual Heath Centre
- 4. Building Lean Expertise, Daniel McDonald, Lean Executives
- 5. Use of Data in Lean Projects, Andrew Castle

http://kinetik.uk.com/pdf/ Lean_London_Sep_09_web.pdf

- 1. Radiology Lean Review The Journey has begun, Carol Darnell, Bedford Hospital Trust
- 2. Recruiting for the Lean & Service Transformation, Daniel McDonald, Lean Executives
- 3. Lean and Systems Thinking, Rob Worth, Kinetik Solutions
- 4. Don't water your weeds starting afresh with Lean, Ian Greddor, Cyril Swett

http://kinetik.uk.com/pdf/Lean London_Feb.pdf

- 1. Challenges in Implementing Lean A Clinical Perspective, Dr Ahmed Chekairi, Whittington Hospital
- 2. A Better Definition of 'Value' in Lean, Ketan Varia, Kinetik Solutions
- 3. Lean in the pharmaceutical drugs supply process, Niall Ferguson, Milton Keynes Hospital



Past Presentations at the Forum

http://kinetik.uk.com/pdf/ leanlondon_sep11.pdf

- 1. Transforming Surgical Productivity, Christopher Kennedy, Guy's & St Thomas NHS Foundation Trust
- 2. Transforming Treatment Rooms, Dr Rebecca Hewitson, The Whittington Hospital NHS Trust

http://kinetik.uk.com/pdf/ leanlondon mar12 presentation. pdf

- 1. The Path-ology to Lean Thinking Dr Mathew Diggle. Nottingham Hospital Trust & Suzanne Horobin, NHS Improvement -Diagnostics
- 2. Pre-Operative Health Evaluation Engagement with Primary Care, Dr Ahmed Chekairi, Whittington Hospital

http://kinetik.uk.com/pdf/ leanmidland0712.pdf

- 1. How many appointments do we need to make?, Kate Silvester, South Warwickshire NHS Trust
- 2. The Path-ology to Lean Thinking Dr Mathew Diggle, **Nottingham Hospital Trust**



Past Presentations at the Forum

http://kinetik.uk.com/pdf/ leanlondon_sep12.pdf

- 1. Sleek & Slim Hearing for Children Dr Sebastian Hendrick, Barnet & Chase Farm Hospital
- 2. Developing value through transformation of care What does it take?, Peter Lachman, Great Ormond Hospital

http://kinetik.uk.com/pdf/kinetik_dec_12.pdf

- 1. Network Improvement Services in Tower Hamlets, Florence Cantle, Tower Hamlets NHS Trust
- 2. Using improvement science in Ambulatory Care, Simon Dodds, Heart of England Trust

http://kinetik.uk.com/pdf/Lean Midland_June11.pdf

- 1. Lean Transformation at Bedford Hospital, Susan Whittaker, Bedford Hospital
- 2. How do drive change by understanding patient value?, Ketan Varia, Kinetik Solutions
- 3. Global Lean Knowledge: The Effects of Culture, Maria Gilgeous, Kinetik Solutions

http://kinetik.uk.com/pdf/ leanlondon_19sep13.pdf

- 1. Takeing a new look at your service "Lean" a process approach to change, Pauline Connor, North Middlesex University Hospital Trust
- 2. "Improvement; Infestion; Impossible?", Dr Mathew Diggle, Nottingham University Hospital Trust

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Big Thanks To Our Presenters

Dr Mathew Diggle

Mr Mike Davidge

..and to you all for attending



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