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Lean Midland Forum

15 May 2014
Education Centre, Good Hope Hospital

We have some broad aims of the forum

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

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

Agenda

- 1800 - 1810 Welcome and introductions
- 1810 - 1840 Improving the Acute Aortic Aneurysm (AAA) pathway at Heart of England NHS FT – Bruce Gray, Heart of England NHS Foundation Trust
- 1840 - 1910 Improve Care for Patients using Kano analysis – Ketan Varia, Kinetik Solutions
- 1910 - 1930 Hot seat session
- 1930 - 2000 Networking and drinks

Acute Aortic Aneurysm (AAA) pathway improvement

Bruce Gray

Heart of England NHS FT

May 2014

@brucejgray

Bruce Gray

- Work at Heart of England NHS FT
  - Heartlands, Good Hope & Solihull Hospitals.
- Improvement Lead
  - Process improvement - clinical and non-clinical.
  - Problem-solving methods; Lean, Six Sigma, coaching, common sense & whatever else works.
  - Car industry 18yrs; Engineer & Progr. Manager.
  - NHS 7 years.


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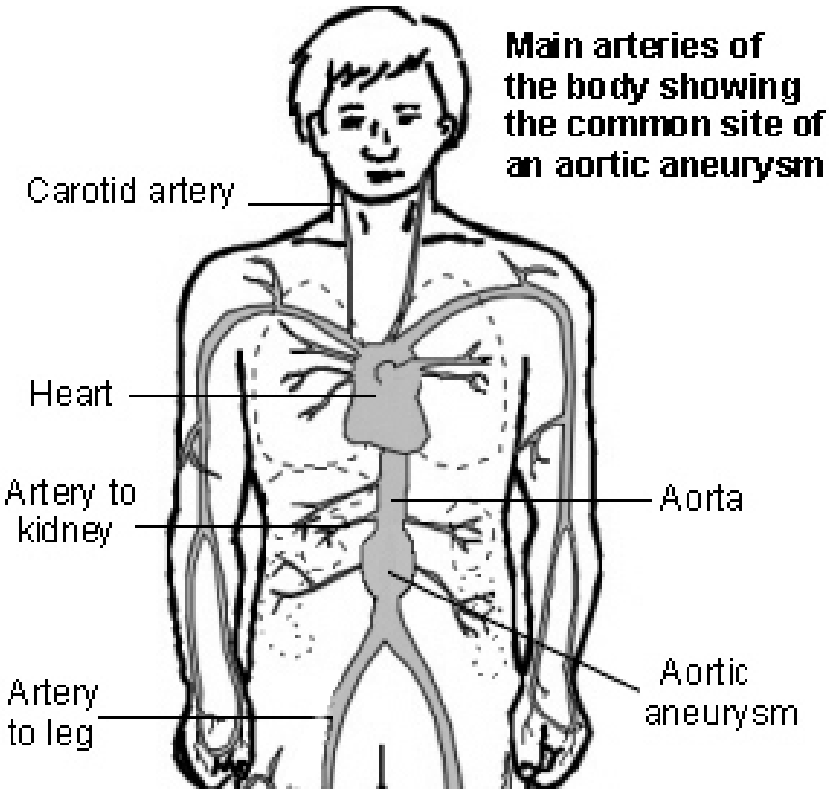
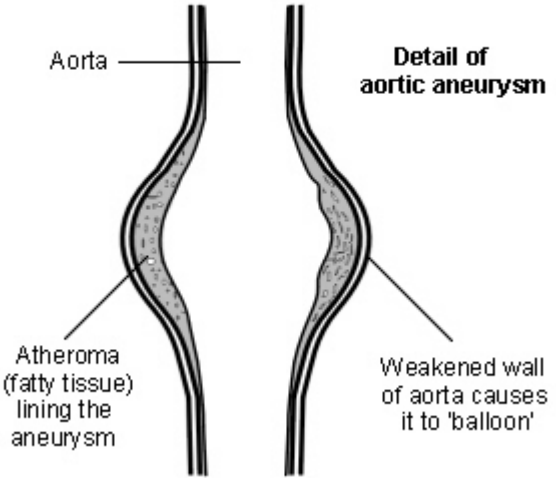
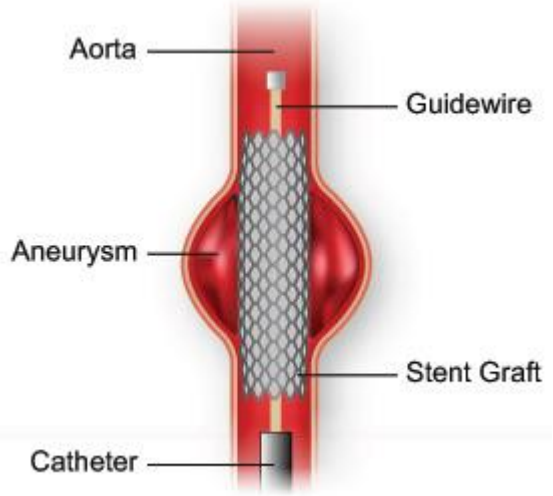
Acute Aortic Aneurysm (AAA)







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A3 method

1. Problem statement
2. Background
3. Current Condition
4. Analysis of root cause(s)
5. Target Condition
6. Countermeasures
7. Implementation plan
8. Results / follow-up / learning

Problem Statement

After identification of an aneurism >5.5cm & prior to Surgery:

- Patients undergo a number of assessments.
- To check physiology and fitness for surgery.
- Currently not coordinated well.
- Patients are making many separate visits.
- A perception that patient journey is chaotic.

Background (1 of 3)

- Men over 65yrs old are screened for AAA.
- If they have an AAA, surgery is recommended.
- Surgeons need a CT scan to understand the detailed physiology of the AAA.
- Patients need to have various assessments to make sure they're healthy enough for surgery.
- Research shows that it is safer for the patient when the time from scan to tests to surgery is only weeks.

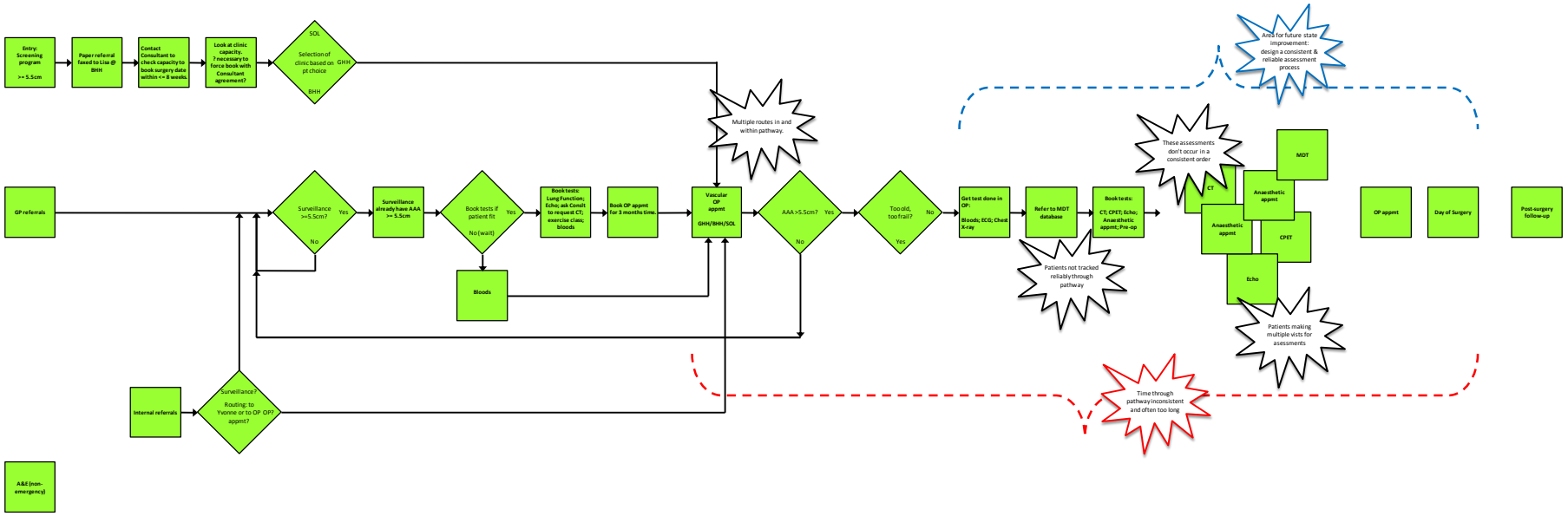
Background (2 of 3)

- Demand for the service is increasing due to the extension of the screening program to Burton & Uttoxeter.
- Screening program: ~5k/year going to ~10k/year.
- National Screening programme target;
  - 2 weeks from date of referral to 1st OP appmt
  - 8 weeks to from date of referral to surgery. This is not being met.

Background (3 of 3)

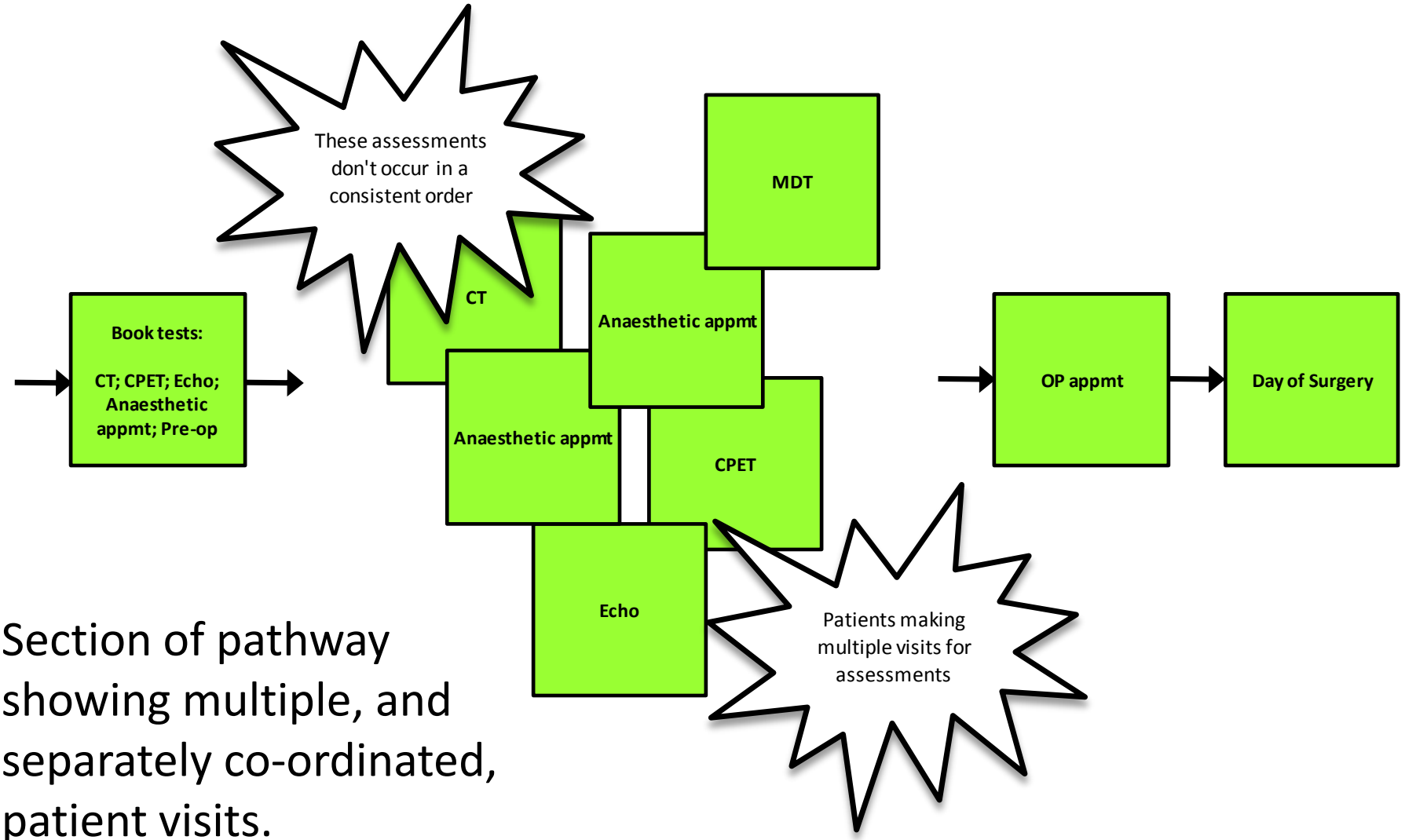
- National programme mortality target 3.5%, HEFT achieving 1.7%-2.0% (2012).
- HEFT is a regional and tertiary centre for AAA repair. Patients travel from all over the UK.

Current Condition (1 of 4)



We mapped the process

Current Condition (2 of 4)



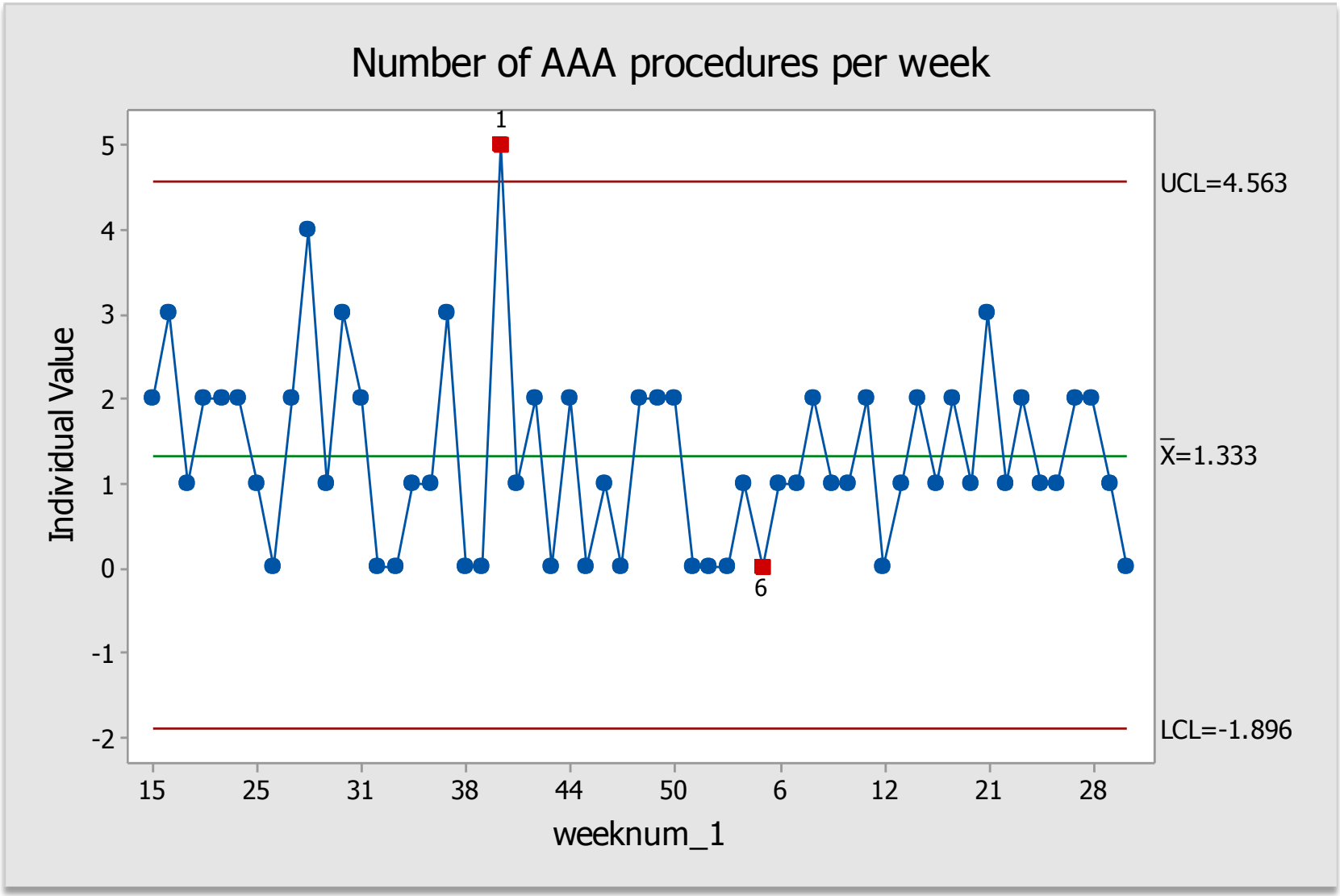
Section of pathway showing multiple, and separately co-ordinated, patient visits.

Current Condition (3 of 4)

Audit of 4 sets of patient notes:

	[Decision to treat] to [Day of Surgery] weeks	Visits made (excl. DoS) weeks
Pt 1	28	9
Pt 2	5	4
Pt 3	11	6
Pt 4	20	5

Current Condition (4 of 4)



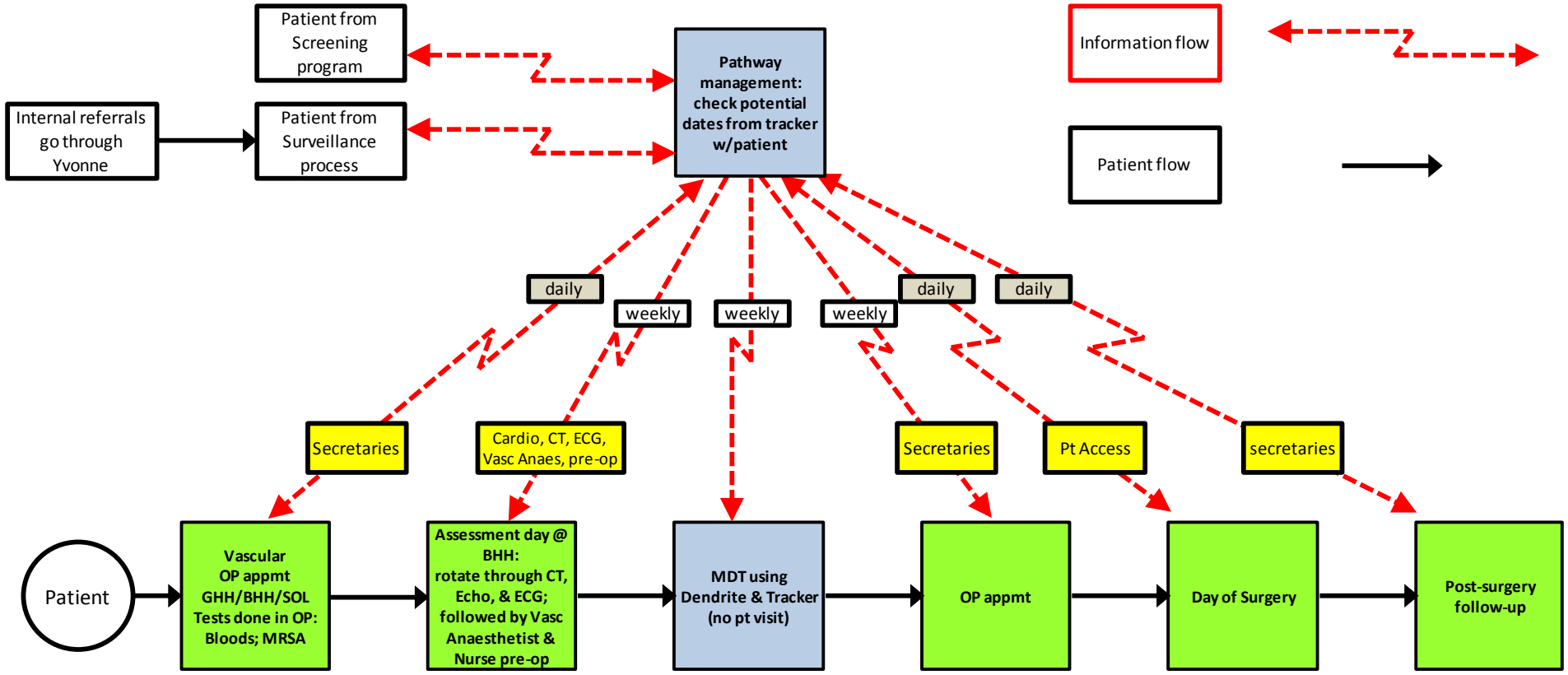
Analysis of root cause(s) (1 of 2)

- No consistent management and tracking of patient flow through assessments, as each Consultant does it differently.
- Queues are invisible so are hard to manage.
- The tests are run by many different teams of staff and are booked separately.
- No single, agreed, visible and adhered-to process.

Analysis of root cause(s) (2 of 2)

- Acceptance that patients can be reviewed in MDT without all relevant info available from a completed suite of assessments.
- Demand and capacity has not been considered.
- No one is looking at this from the patient's point of view.
- Improvement science is not taught to Doctors, Nurses or Managers.

Target Condition



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Countermeasures (1 of 2)

- Single point of entry to tracking system to manage all AAA pts through assessments in a coordinated way.
  - i.e. patients from surveillance, screening program & internal referrals.
- Following decision to operate (in OP appmt), bloods and MRSA swab should be done immediately.

Countermeasures (2 of 2)

- Radiography and Cardiology agree to 3 slots/wk (balanced demand).
- Assessment day designed to take 3 pts each week; patients rotate through Echo, ECG, CPET, CT Angio prior to Vascular Anaesthetist appmt and nurse-led pre-op.
- Process designed to co-ordinate the above, and will require proactive management.

Implementation Plan (1 of 3)

- Patient Tracking spreadsheet:

		max pts																				
OP1	OP #1			number of OP#1			2	4		3	3	4	2	4	2							
CT	CT	3		number of CT					3	3	3		3	3	3							
AD	Assessment day	3		number of assessment day							3	3	3		3							
MDT	MDT			number of MDT									4	2	3							
OP2	OP #2			number of OP2										3	2							
actual date	Day of Surgery			number of DoS											2							

	Pt Name	PID	ConsIt	Referral date	Repair type	average 1.5 Refl to OP1	average 10.3 Refl to DoS	dates agreed	OP1 date	w/c 16/07/12	23/07/12	30/07/12	06/08/12	13/08/12	20/08/12	27/08/12	03/09/12	10/09/12	17/09/12
1	Bloggs	12345678	MG	16/07/12	open	1.1	9.1	yes	24/07/12		OP1		CT		AD		MDT	OP2	18/09/12
2	Smith	12345679	MS	16/07/12	open	1.3	9.3	yes	25/07/12		OP1		CT		AD		MDT	OP2	19/09/12
3	John	12345680	AB	16/07/12	evar	2.1	10.3	yes	31/07/12			OP1	CT			AD		MDT	OP2
4	Paul	12345681	DA	24/07/12	fevar	1.1	9.1	yes	01/08/12			OP1		CT	AD		MDT	OP2	
5	George	12345682	HK	25/07/12	evar	1.1	9.7	yes	02/08/12			OP1		CT		AD	MDT		OP2
6	Ringo	12345683	MC	26/07/12	open	1.1	12.3	yes	03/08/12			OP1		CT		AD		MDT	

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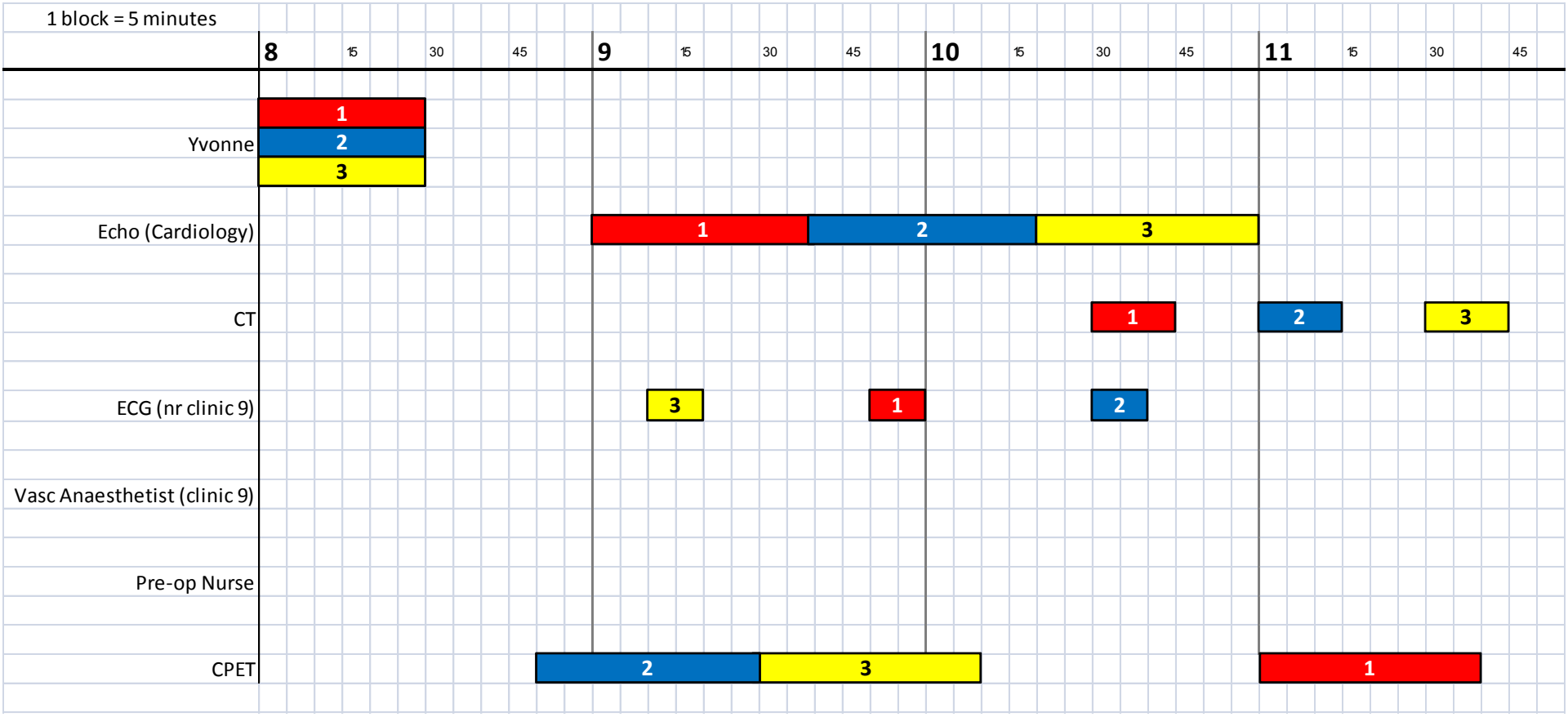
Implementation Plan (2 of 3)

Assessment day schedule



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Implementation Plan (3 of 3)

Please find the patients below who have confirmed they will be attending the AAA one stop on Wednesday 30th

Patient one: [redacted] – Mr Adam
Patient two: [redacted] Mr Claridge
Patient three: [redacted] Mr Adam

Echocardiogram: [redacted] book for 9.00 **to have ECG as well**
[redacted] book for 9.40 **to have ECG as well**
[redacted] book for 10.20

CT: [redacted] book for 10.15
[redacted] book for 10.45
[redacted] does not need CT

ECG: [redacted] book for 09.05

CPET: [redacted] book for 8.45
[redacted] book 9.30
[redacted] book for 11.00

Anaesthetic: [redacted] book for 1.00
[redacted] book for 1.30
[redacted] book for 2.00

Pre op: [redacted] book for 2.30
[redacted] book for 3.00
[redacted] book for 3.15

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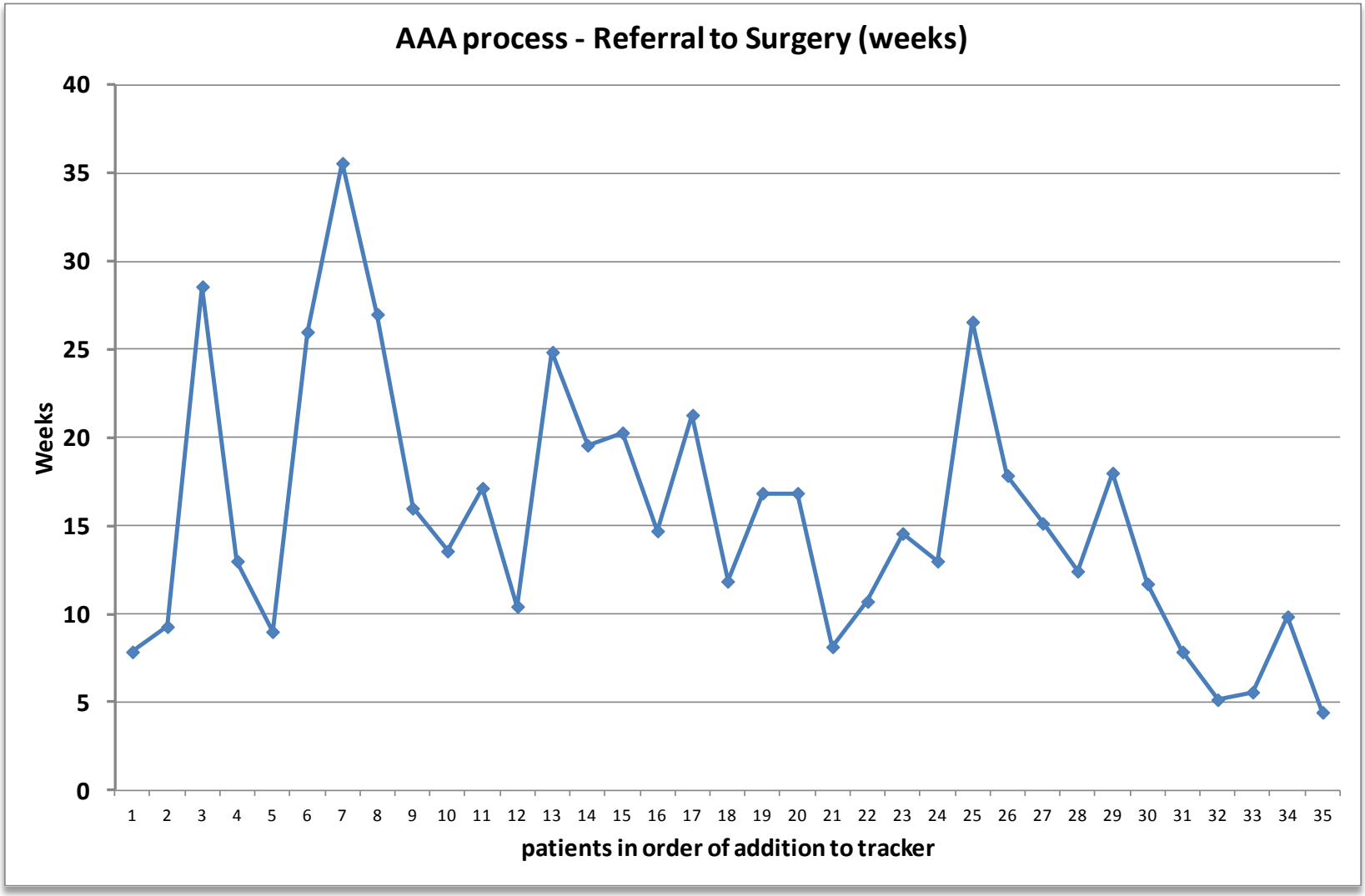
Results / Learning (1 of 3)

- The process began with the first Assessment Day on 16th September 2013.
- Running for 33 weeks (to 7/5/14)
- Patients on tracker so far: 90
- Patients through surgery: 35
- Referral to Day of surgery time still too long, but falling (ref. next chart).

Results / Learning (2 of 3)



Results / Learning (3 of 3)

- It is possible to improve patient pathways using team-based problem-solving methods.
- Even a basic analysis of demand will help to design and manage the capacity required in a process.
- A simple spreadsheet can be used to make a complex process and it's queues visual.
- We now need to have a process review.

Thank you – questions?

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kinetik solutions

May 2014

Understanding customer needs to drive sustainable service excellence

Presentation for Lean Midland Event

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What this presentation is about

This is a discussion document explaining how to understand customer needs in order to improve processes in the service industry. The document outlines an approach where:

- Customer needs are classified in different dimensions (basic & attractive)
- Service elements that are wasteful in terms of customer experience are clearly identified
- Services can adapt to different cohorts of customers

Poor customer experience inflicts huge costs on organisations

- **7 out of 10 people have ended a relationship due to poor customer experience***
  - Each lost relationship costs around £400 in service industries
  - This has a negative impact on the reputation of a business

- **There is a financial loss to society as a whole**
  - Poor customer experience costs the economy £15.3 billion
  - There are also consequential losses generated in terms of frustration, stress, ill-will etc.

- **Unnecessary resources are expended**
  - As an example, employee motivation often falls due to poor interaction with customers
  - Organisations focus on often on high end features and functions rather than getting the basics right

**The State of Customer Experience Capabilities and Competencies SAS, SAS Institute Inc. and Peppers & Rogers Group, USA, 2009*

Many organisations do not get the basics right in understanding customer experience or expectation

"The first step should be to understand and measure the direct business impact of customer service, and identify the gaps between the customer experience and expectations."
Genesys – Global Survey of Customer Experience, 2009

"Today, more so than ever before, customers listen with their eyes to see what a company does rather than with their ears to hear what the company says. Customers feel first, think second."
The State of Customer Experience Capabilities and Competencies SAS, SAS Institute Inc. and Peppers & Rogers Group, USA, 2009

"Amazingly, only 20 percent of companies today even try to know the state of their customer experience success by measuring it holistically across all channels."
The Customer Experience Quality Framework, Forrester Research, 2007

Better customer experience can reduce costs both to an organisation and to society

Measures of customer satisfaction are often inadequate at understanding true needs or expectations

- **Returns are often low and statistical significance is questionable**
  - People who fill in questionnaires are likely to be biased from the overall cohorts of customers
  - The questions have set gradations wholly based on customer expectation (e.g. very good to poor), which in itself offers little insight

- **On a conscious level, customers sometimes find it difficult to articulate their true priorities**
  - They are often unable to articulate exactly what is driving their expectations
  - When making suggestions, customers assume that the organisation has infinite resources to meet customer expectations

- **The feedback mechanism for change and improvement of services is slow, from understanding customer needs, often lacking adequate details**
  - Organisations often find themselves creating unintended consequences in improving just one element of customer service

Customer experience needs to be based around four attributes as well as managing expectations

Satisfying features

•Features where satisfaction and dissatisfaction are in line with availability and performance

•The better the performance, the more satisfied the service user will be

Attractive features

- Features that the service user perceives as unusually high in value
- Can achieve disproportionately high satisfaction

Basic requirements

- Elements of the service that are taken for granted as essential
- Huge dissatisfaction if missing or if performance is poor
- Only limited satisfaction if available or performed well

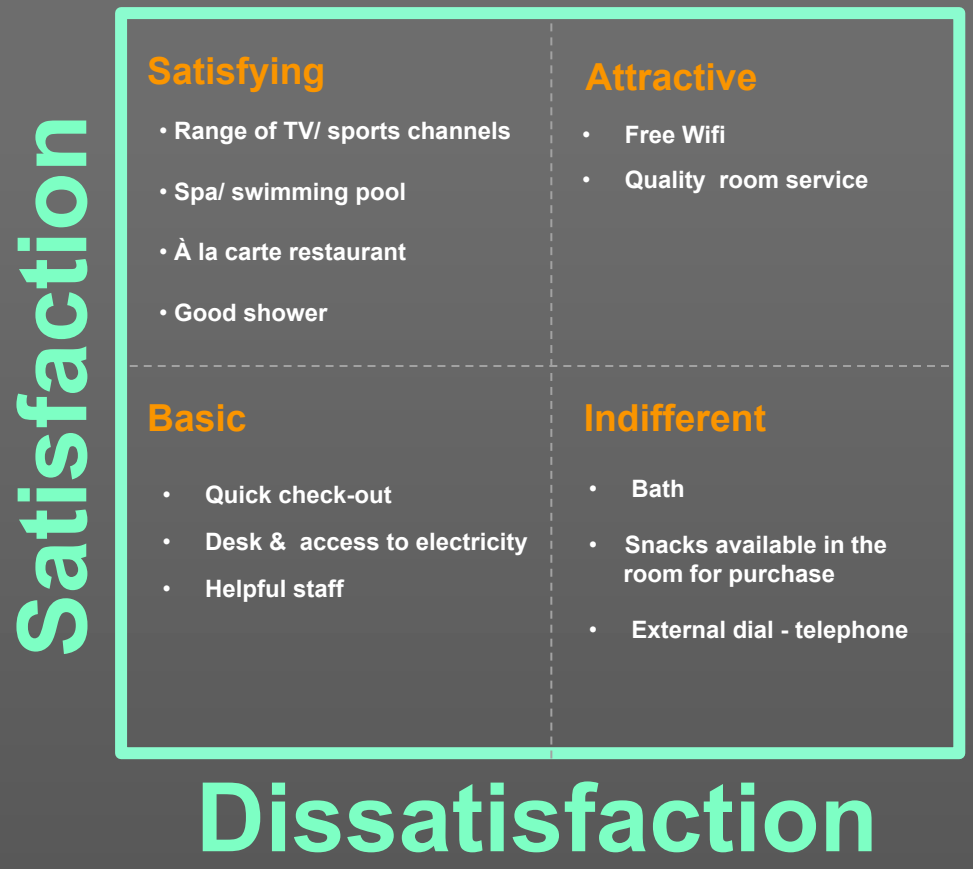
Indifferent

- Elements which the service user does not consider important
- Little value placed on these service features

Resources Available

Customer Expectation

An example of attributes of the customer experience for a business-hotel



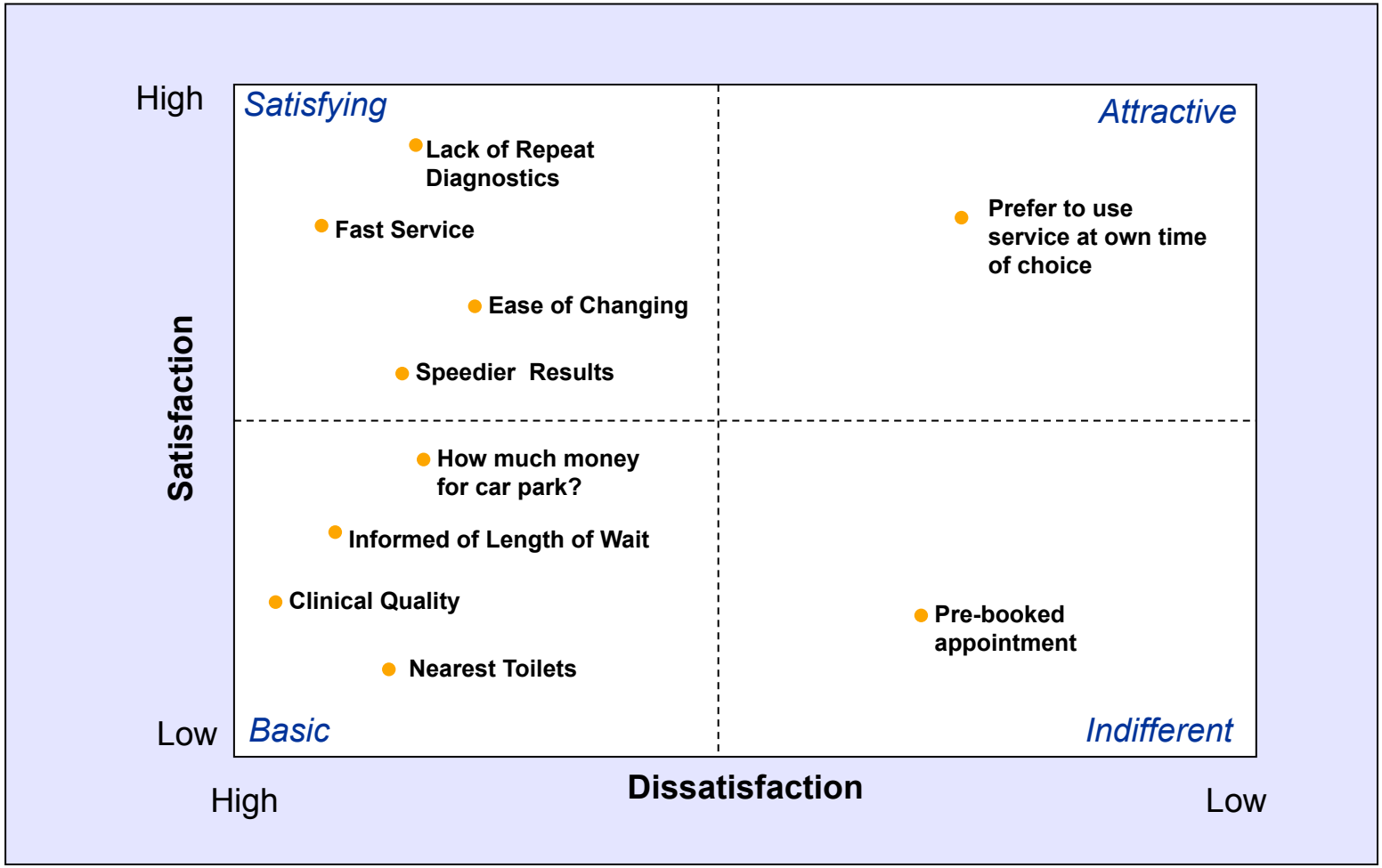
Understanding the attributes helps to answer the following questions:

- If the aim is to improve the service, where should resources be focused?
- What investment will give the best returns in terms of perceived quality of service and satisfaction?
- Where do we need to manage customer expectation?
- Which elements of services can we downgrade?
- What elements can we adapt based on the individual or a smaller cohort of customers?
- Where do we focus staff training and behaviours?

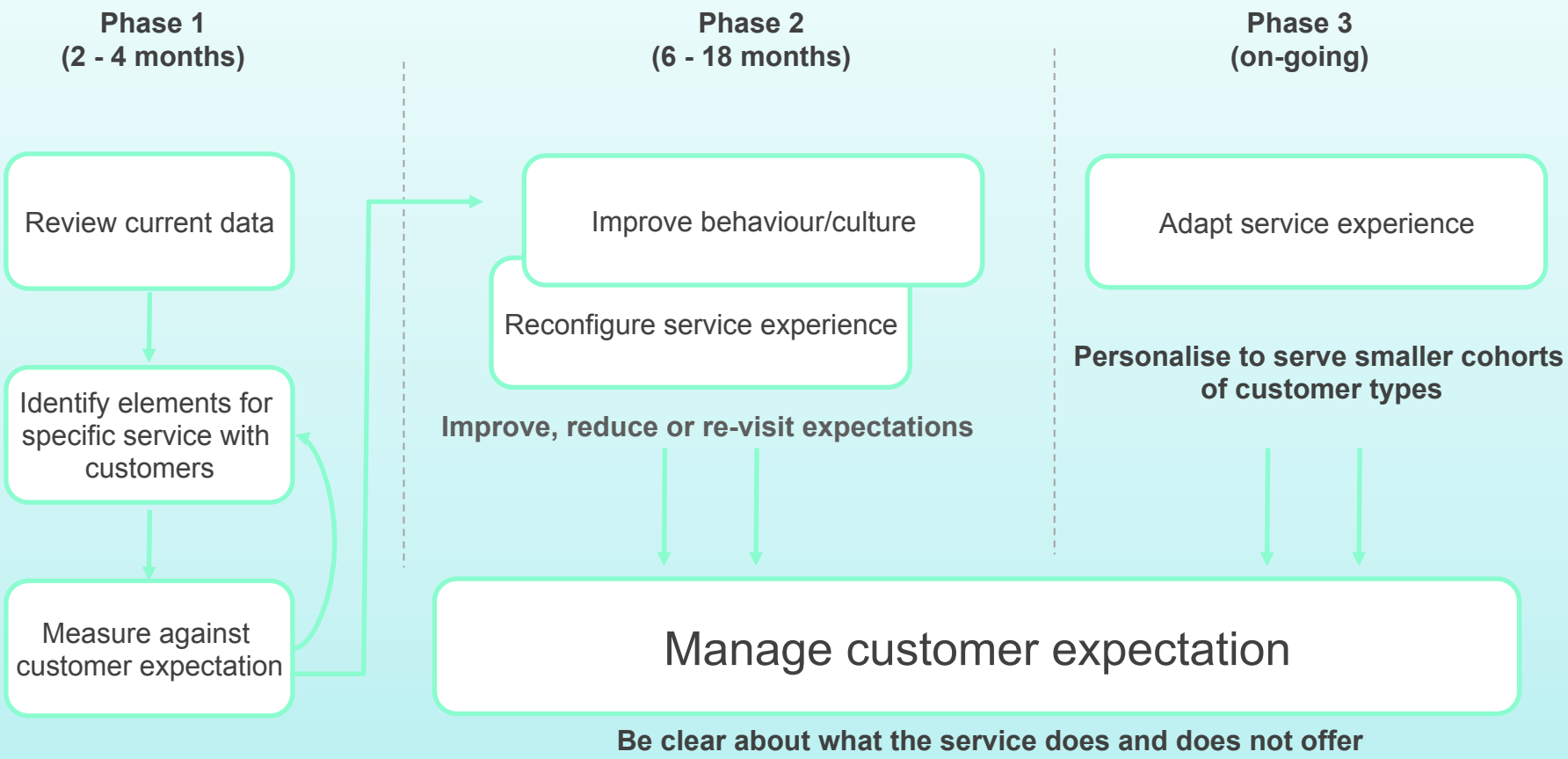
Animation on Kano http://goo.gl/3eoR0M

Elements of the patient experience should be categorized around a matrix of satisfaction/dissatisfaction

Example – Diagnostic Service



We have an approach over 3 phases to get service experience right



kinetik solutions has wide experience in Business Transformation and Change Management

Schlumberger

NHS Institute for Innovation and Improvement

BARCLAYS

national STATISTICS

BAA The world's leading airport company

carillion

Hertz

DIGITISING EMI Music

Bedford Hospital NHS NHS Trust

Kidde

"Their approach achieved an intensive, evidence-based focus on a key policy and operational priority, integrating multi-disciplinary and multi-organisational perspectives. Their preparation and professionalism… added real value."

Head of Informatics, NHS Acute Trust

"An excellent approach in developing ideas and principles which was frequently used to talk both operational teams and senior managers through a number of concepts and design iterations. Some of these were so successful that they have now been adopted across the project."

Head of Operations, Census Division, Office of National Statistics

What's Next?

- **Today's presentation and feedback survey sent out by email within 72 hours**
- **The Next Lean Midland Forum will be held in September 2014.**
  - Register at www.leanmidland.org.uk
  - We will send out reminders to all participants from today
  - We have a Lean London Forum on 12 June 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, GP Groups, Local Authorities & other Public Sector
- **Find us on LinkedIn and twitter - LeanNHS**

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

Big Thanks To Our Presenters

Bruce Gray

..and to you all for attending

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