



Lean Thinking for the NHS

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The Challenge

- The changing context is driving the search for new business models for delivering healthcare
- The existing model where doctors effectively manage their own patients in someone else's general hospital and the government picks up the bills is no longer sustainable
- We know the problem can't be fixed by spending more, increasing capacity or changing structures
- So how can we deliver better quality outcomes and experiences for patients, as well as better working experiences for staff, with fewer resources?
- A truly sustainable win-win-win



The Lean Example

- The most powerful example today is Toyota: -
 - Their cars have the fewest defects – yet they take the least hours to make
 - Their parts supply chain has the highest availability - with one tenth of the inventories
 - They have the fastest time to market for new products – and lead in hybrid engine cars
 - They are growing across the world – and will shortly overtake General Motors to be No 1
- Their lean business model is now being followed by others - Tesco, GE, Rolls Royce, Fujitsu etc.
- And by the pharmaceutical giants – whose supply chains are at least as broken as healthcare!



Toyota's Lean Strategy

“Brilliant process management is our strategy.

We get brilliant results from average people managing brilliant processes.

We observe that our competitors often get average (or worse) results from brilliant people managing broken processes.”

Underpinned with a management system that develops every employee into a problem solver



What Did Toyota Do?

- **And what can we learn from them in healthcare?**
- **They basically transformed the way work is done and the way people work together**
- **There are three levels to this transformation: -**
 - **Improving the way each activity is performed and the work of departments like pathology, radiology etc. – Point Kaizen**
 - **Redesigning complete patient journeys from beginning to end – Value Stream Kaizen**
 - **Rethinking the way organisations manage these journeys and synchronise the necessary support activities – System Kaizen**

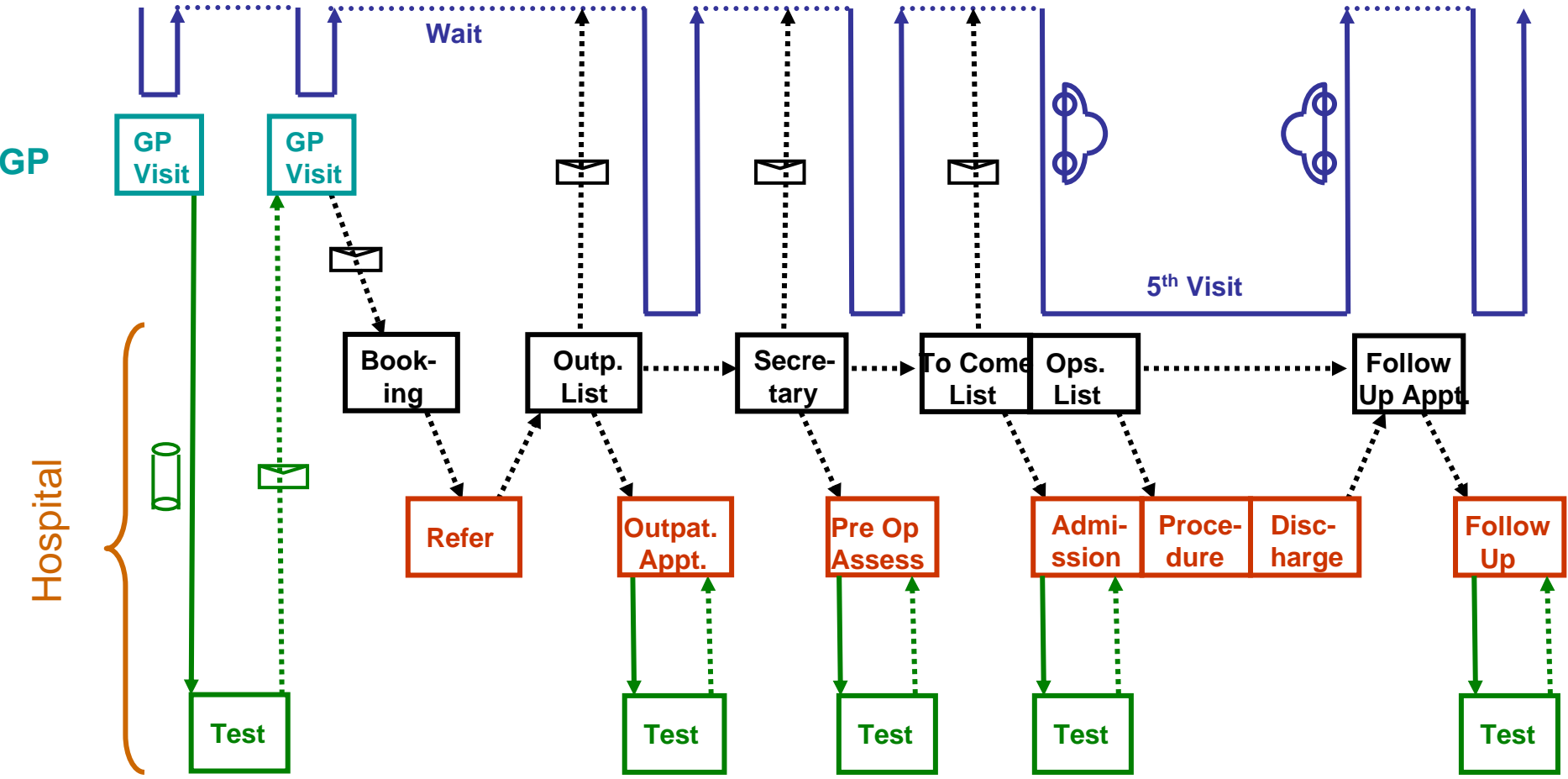


Point Kaizen

- **Engage staff to: -**
 - **Redesign work to eliminate unnecessary steps**
 - **Create standard layouts with everything there**
 - **Make the work, progress and problems visible**
 - **Remove ambiguities and errors etc.**
- **Engage teams to redesign the flow of work through a department like pathology or pharmacy:**
 - **To simplify the steps, eliminate delays, level the workload, reduce errors, save staff time etc.**
- **Staff need support for this problem solving and these islands of flow need to be linked**



For the Patient - 6 Trips, 100 minutes of Value, 610 minutes Time, over 31 weeks



For Healthcare – 100 minutes of Value, 330 minutes Time, over 31 weeks

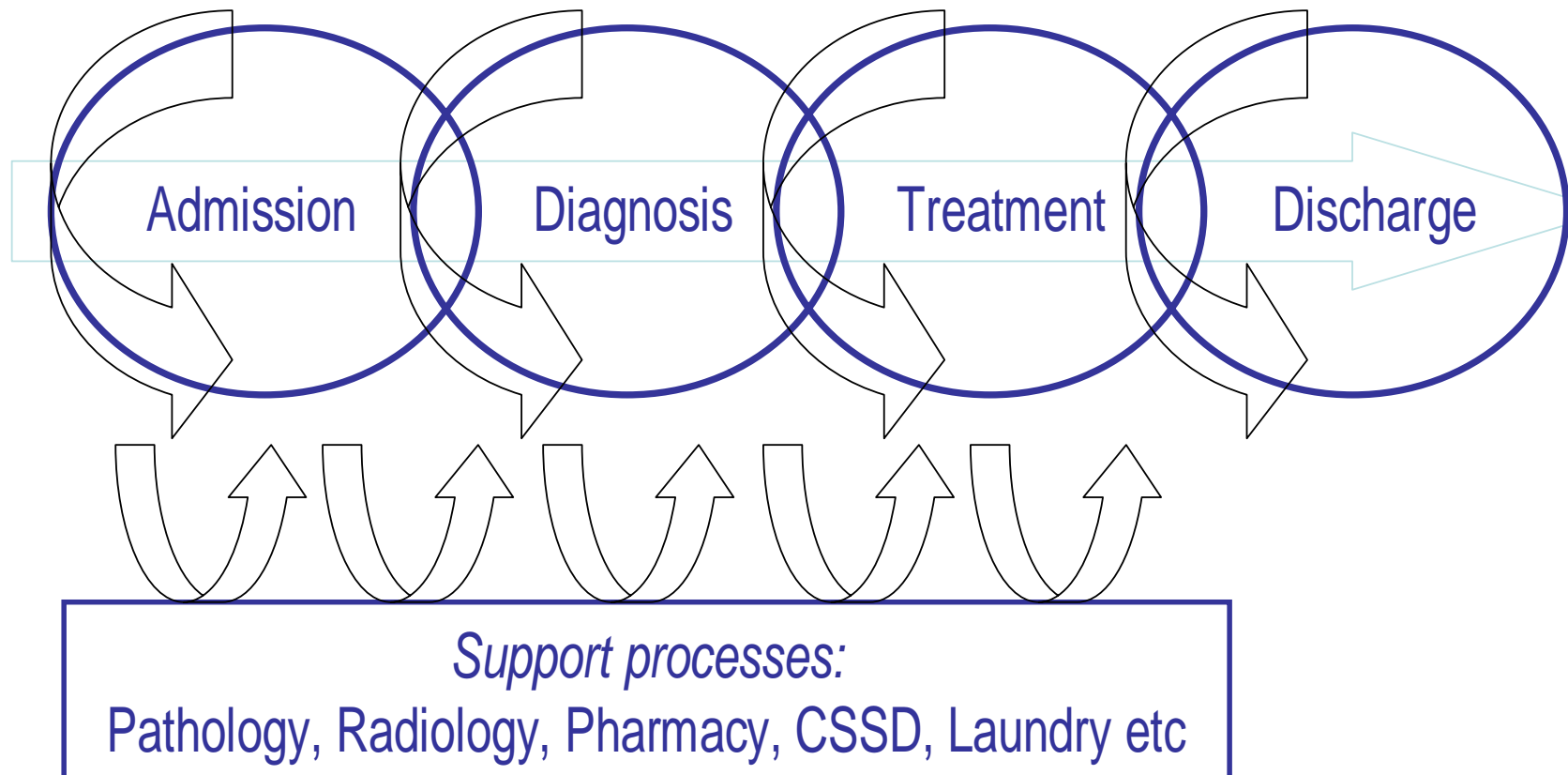


Is Healthcare so Different?

- “There are no standard patients” – yet they basically follow a few routes through the hospital
 - Group the value streams not by department but by length of stay and the facilities they need
- “But demand is quite unpredictable” – actually it is quite predictable in A&E
 - Batching, queuing and rescheduling causes the volatility in elective work – try open access
- “But every patient is different” – actually 6% of procedures account for 50% of the work load
 - Start by creating a flow for these **green patients** and free up more time for the **red patients**



Pull at work: every step pulls patients, materials and information towards it, one at a time, as and when needed





System Kaizen

- **Lean thinkers see a hospital as a collection of value streams, not of departments**
- **Many support activities need to be synchronised to enable these value streams to flow**
- **And cooperation is vital because most value streams cross several organisations**
- **Moving activities into primary care may be right – but not if we just replicate broken processes – and make existing hospitals unviable**
- **Redesigning diagnostic and treatment processes with their support processes opens up new models for service delivery – with right-sized tools**



Lean and Process Thinking

- **Lean builds on the process work done in the NHS – and brings together strands of process thinking: -**
 - **Total Quality and Six Sigma is about measuring the root causes of variance**
 - **Total Productive Maintenance is about improving equipment availability**
 - **Theory of Constraints is about managing bottlenecks - until we can get rid of them**
- **Lean unites them in a set of principles for process redesign and a management system for sustaining and improving them**
- **With Toyota as the powerful reference model**



Lean Principles

- Specify **value** from the standpoint of the patient and the organisation
- Identify the **value stream** to diagnose and treat the patient and remove wasted steps
- Enable the patient to **flow** smoothly and quickly through every step
- Match capacity with demand so work is done in line with the **pull** of the patient
- While pursuing **perfection** through continuous improvement of the value stream

Purpose, then Processes and then People



The Results

- **The initial gains are a dramatic improvement in quality – mortality, errors, patient satisfaction**
- **Then better staff morale as things get done right first time on time – and budgets are met!**
- **Which leads to increased throughput with the same resources – and better utilisation of theatres**
- **Accelerating momentum as staff have time for problem solving and continuous improvement**
- **But because it depends on the willing cooperation of all staff this can not be a quick fix**
- **On the other hand it will undoubtedly separate the sheep from the goats in this industry too**



The Win-Win-Win

- Is actually possible!
- The theory and principles are tried and tested – with many examples in many industries
- The objectives of the **Lean Healthcare Network** are to help to create examples in all aspects of healthcare – to translate lean into healthcare language - and to tell the stories to inspire others
- The job of the **Lean Enterprise Academy** is to write up the methods so others can follow them
- This all depends on people being willing to rise to this challenge – and convince their colleagues
- Will you be one of those pioneers?



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