



Lean Thinking for Healthcare

Daniel T Jones

**Chairman
Lean Enterprise Academy**



Myths about Healthcare

- ***“Healthcare is complex”*** – but patients follow a few common routes through hospitals
- ***“A&E demand variable and unpredictable”*** – but elective demand is more variable and created
- ***“Every patient is different”*** – but 6% of treatments account for 50% of the work
- ***“Standard work kills creativity”*** - in fact it frees up time for more patient care
- ***“Healthcare is a service”*** – looks like production



What Have We Learnt?

- **The place to start is by following acute patients through hospitals from primary to tertiary care**
- **Big opportunities from following the material flow through the supply chain to healthcare**
- **The actions to create lean healthcare processes are increasingly clear**
- **The challenge now is the transition path and lean healthcare management**
- **We are beginning to see what lean hospitals might look like – and new business models**



Opportunities for Action

- **Establish stability everywhere**
- **Develop clinical pathways**
- **Create end-to-end value streams**
- **Integrate diagnostic value streams**
- **Replenish supplies frequently**
- **Develop lean hospitals (healthcare systems) around the value streams**
- **Lean healthcare supply chains**



Simple Lean Principles

- **Define value for the patient, the organisation and the employee**
- **Organise by end-to-end value streams following the patient, the records and the work**
- **Redesign activities, integrate them and remove waste so each value stream can flow**
- **Balance real demand with capacity so there is no need to wait**
- **Continue to improve the value stream and the support flows step by step using the evidence based scientific method for problem solving**



Huge Opportunities

- **The only way to dramatically reduce errors and improve safety**
- **The only way to reduce wasted time and effort and free up capacity**
- **And to empower staff on a continuing basis**
- **But this is just half the story:-**
- **The only way to speed up the development and trialling of new drugs**
- **The only way to dramatically reduce the cost of making and delivering all the drugs, supplies and equipment into healthcare**



Getting Started

- **Find a change agent (maybe you?)**
- **Get the lean knowledge**
- **Seize a crisis (or create one)**
- **Map your product family value streams**
- **Get started quickly and demand results**
- **Build a management system to focus and align all activities and processes**
- **And a style of leadership that enables employees to sustain and develop these processes**

- **There is no one best way**
- **But no one can do lean for you!**



Three Levels

- **There are three levels of action: -**
- **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 Kaikaku**
- **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.
- **Stand and watch what is going on! Why is there so much chaos?**



Value Stream Kaikaku

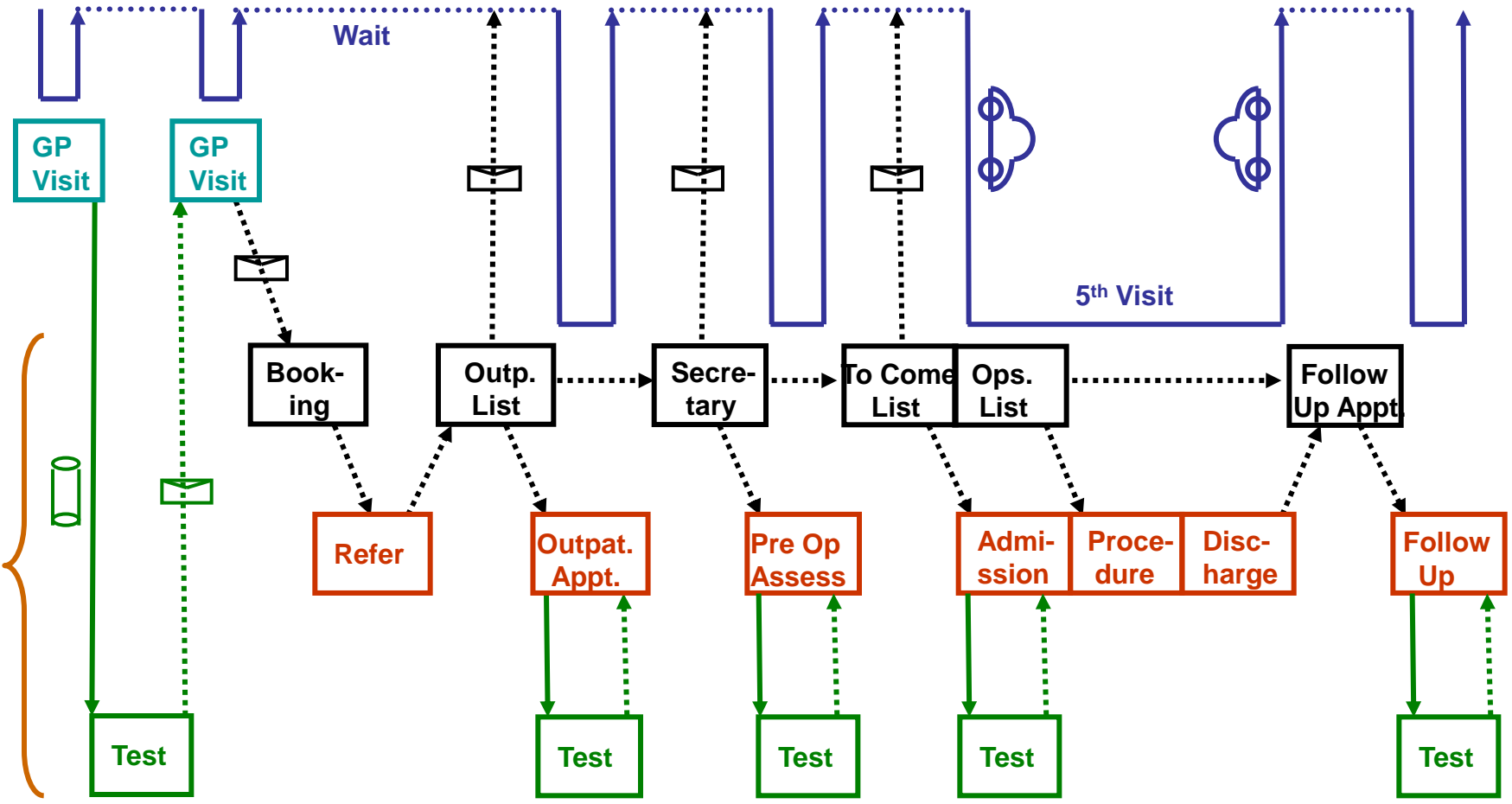
- **Learn to separate the flows through the system by process route**
- **Learn to see how stable real demand is**
- **Learn to distinguish the routine from the complex cases**
- **Map the patient flow for the routine patients, make each step capable to allow the patient to flow**
- **Map the decisions for the complex patients and try to synchronise them**
- **Take a walk through to value stream to see what is really happening! Why does it take 18 weeks to do 2 hours work?**

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



GP

Hospital



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



System Kaizen

- **A lean hospital is a collection of value streams as well as functions and 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**
- **Value stream plans need to be matched to the resources through a policy management process**
- **The prime role of leadership is to provide clear direction and to develop their people**
- **Go See, Ask Why, and show Respect for People**



A Lean Supply Chain

- Starts in the hospital – frequent deliveries to use
- Replenished by frequent deliveries from each stage upstream as far as production
- Produce every product every day in line with demand and not to forecast
- This can cut your supply chain from **18 months to 18 days** and take out layers of cost
- Rapid replenishment beats scale and bargaining power
- Unipart and Tesco learnt how to do this from Toyota's parts system
- Now Tesco is using it to pioneer a convenience revolution in shopping



Where Next?

- **You are not alone – hospitals around the world are embracing lean healthcare!**
- **We have created many promising examples**
- **And educated a raft of lean consultants!**
- **It will involve challenging many mental models**
- **So you will need all the help you can get!**
- **You will find most of the books on lean on our web site www.leanuk.org**
- **And the “Lean Thinking for the NHS” report**



Lean Thinking for Healthcare

Daniel T Jones

**Chairman
Lean Enterprise Academy**