Microbiology Dept Productivity Case Study

Project Background

- Microbiology Dept was looking to improve efficiency of sample processing
- 3M was asked to help through process flow mapping and observational studies to optimise the process

Our approach

- 3M conducted a Vision session for the department for future state mapping
- Observed the dept in action and identified pain points where bottlenecks occurred
- Analysed the data and developed an improvement plan

Vision Development

- Allowed the Champion time to think about the current status quo – the 'IS' map
- Developed a Vision of what the department should look like – to allow progression to a 'Should' Map
- Had a guided tour of the facility to observe 'reality' and identify pain points
- Developed a plan to investigate ways to improve
- Spent 2 days collecting data and timing processes to understand bottlenecks
- Made recommendations for improvements

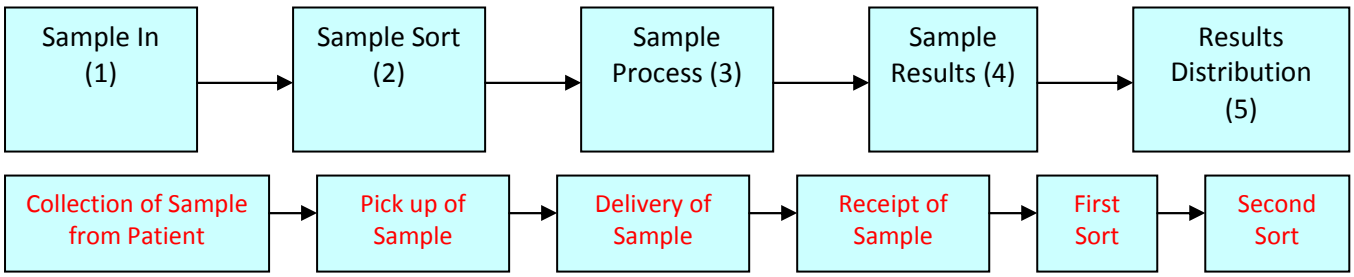
Outlined Problems & Pain Points

Ranging from:

- General workload issues
- Data entry completion
- Specimen processing
- Sample collection
- Adequate staffing to handle high influx of samples

Benefits to the Trust

- Using Lean thinking philosophy and Value Stream mapping allowed Dept Mgr to visualize the overall flow of samples through the pathology central specimen reception
- Working with 3M using Lean thinking and observation studies has allowed the microbiology department to make rapid and continuous improvements leading to the processing of 13% more samples
- As the internal team were encouraged to participate and contribute to the process this has energised staff and made the improvements more valuable



Steps from 'Collection of Sample' to 'Second Sort'

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Improvements

Improvement	Which step in the flow?	What is the Control Method?	How will the improvement be measured?	Frequency of Measurement	Reaction Plan	Who is Responsible?
Hatch rota implemented to ensure samples processed rapidly.	Step 2 – sorting samples into major groups.	BMS on duty ensures samples sorted and processing started rapidly	Hatch duty rota in place – monitored by BMS.	Mon-Fri	If samples not dealt with rapidly MLA responsible reminded of process by BMS	BMS on Duty
Log InterCare delivery time and number of boxes	Step 1 – Sample received	Understand sample deliveries to ensure InterCare are delivering the service as agreed	Log kept at hatch	Mon-Fri	BMS to check the log routinely to ensure delivery drivers complete extra information on log	BMS on Duty
BMS assigned to Central Specimen Reception	Steps 1 – 5	BMS to perform supervisory duties and sample coding to ensure samples sorted rapidly	BMS rota complete	Mon-Fri	If samples not dealt with rapidly MLA responsible reminded of process	BMS on Duty
Observe 4.45pm cut-off for sample processing on same day	Steps 2 & 3	MLAs trained on new process. Any samples arriving before 4.45pm will be processed during normal time.	Record whether staff are staying beyond extended end of day to process sample backlog from day	Weekly	If number of samples processed causes more late working, Head of Microbiology to address with BMS on duty	Head of Microbiology
Project Y – improve the flow of samples through CSR	Steps 1 - 5	Head of Microbiology to continue to measure and log the number of samples processed	Spreadsheet	Monthly	If number of samples does not increase but more samples are processed after 4.45pm, Head of Microbiology to revisit the improves and discuss with the BMSs	Head of Microbiology

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