Cost Improvement

SynergyTrak Case Study
Sterile Processing Departments (SPDs) are under increasing pressure to deliver results with reduced budgets. With little financial support to hire new technicians, Sterile Processing Department managers are facing the challenging task of managing the changing priorities of the Operating room. Increasing numbers of procedures with complex surgical instruments require Sterile Processing Departments to identify innovative ways in order to drive improvements at a lower cost. At Royal London Hospital UK, the average number of full time employee’s was reduced from 93 to 63, a proportional reduction of 12% when accounting for volume differences between 2009 and 2013. This reduction was achieved by SynergyTrak implementation. In conjunction with this, the Sterile Processing Department increased their average Instrument Per Operator Hour (IPOH) rate from 62 to 72, decreased employees’ temporary disability rate from 6% to 1%, and the total night shift hours from 15% to 4%.

Problem
The Sterile Processing Department can often face poor staff moral and increasing pressure in order to prove how effective the team is. With increasing instrumentation backlogs, Sterile Processing Departments are working overtime to meet the demand and ensure the right instruments are at the right place at the right time. This extra stress on staff increases temporary disability rates. As a consequence, more temporary agency employees are needed to be hired and trained in a limited period of time.

Sterile Processing Department Budget Pressures
The Sterile Processing Department is seen as an increasing cost center rather than a value delivery center, with a budget that is often challenged to be adequately maintained and benchmarked. Pressure can easily accumulate if temporary employees, overtime and night shifts start to accumulate and demand allocated budget increase.

The Value of Data Performance
Being able to understand the varying Sterile Processing Department demand throughout the day is a key to efficient shift patterns implementations. Improved shifts management indicates productive and effective employees’ contributions with reduced amount of sick pay. Utilization of peer-to-peer training paradigm commences productivity and efficiency increase. Continuous improvement is driven by technicians’ individual performance data analysis which automatically leads to overtime and resource reductions.

SynergyTrak Performance Management Tools
The SynergyTrak Performance Center provides deep visibility into the performance of technician productive time.

Automated data gathering and advanced analytics allow technicians to have targets calculated and automatically set by tray type, based on the performance of the entire team. SynergyTrak reports can identify the average time taken to process trays and aggregate the data to indicate where peer-to-peer training shall be implemented. In addition to this the SynergyTrak Performance Management Center can track technician statistics such as night shift hours, temporary disability data and temporary levels, while providing necessary tools to effectively manage technicians over time.

SynergyTrak Management Information has assisted in the delivery of significant cost reductions
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Introduction
The following case study outlines the changes that took place at the Royal London Hospital UK. It will examine the 4 years subsequent to SynergyTrak implementation and the improvements that were achieved by SynergyTrak Performance Management Center implementation.

A baseline was set in 2009 subsequent to the implementation of SynergyTrak at Royal London Hospital:

- 10,000 trays processed per month
- On average, 65 instruments were processed per operator per hour (IPOH)
- There was an average of 83 full time employees (FTE's) working at the Sterile Processing Department (Figure 2.)

![Figure 2 – Baseline data of facility in 2009](image-url)
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Overview
The service began with implementation of SynergyTrak at the Sterile Processing Department in 2009. During this implementation, Sterile Processing Department technicians were trained in using SynergyTrak and the Sterile Processing Department management was trained on how to use the Performance Management Center module within SynergyTrak. The Performance Management Center allows managers to view the Sterile Processing Department’s performance at a facility level and broken down further to a shift and finally Sterile Processing Department technician level (Figure 3). With full transparency into the Sterile Processing Department’s performance, the Sterile Processing Department manager can identify shifts, technicians and teams of technicians which are underperforming and outline areas where they require further training.

Figure 3 – Technician Performance Reports
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**Status Report 1**

**Improve Staff Productivity**

By implementing the benchmarking tool, Sterile Processing Department management outlined that their productivity was lower than Sterile Processing Department’s that serve similar hospitals. Throughout the first eight (8) months, the average Instruments Processed per Operator Hour (IPOH) was around 60. (Figure 4)

Using the Performance Management Tool within SynergyTrak (Figure 1), the Sterile Processing Department manager conducted weekly reviews with technicians in order to discuss their performance and to set short and long-term goals specific to each technician. The effect of the weekly review was quite significant with an increase in IPOH from 60 to a peak of 80 in March 2010. (Figure 4)

During the months of peak performance the Operating room and Sterile Processing Department managers noticed an increase in quality issues or defects. As a consequence of this, a quality centric goal was set at 70 IPOH for the facility. Once technicians were properly educated on defect rates and required productivity, defects decreased to an acceptable level.

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1) A weekly review process with technicians was set up. The Performance centre data allowed better performance management as staff level.

2) Using the performance centre within SynergyTrak, productivity was managed up to a peak IPOH of 80.

3) Service Quality issues were identified by SynergyTrak, targets were adjusted to a more quality centric level of 70 IPOH in order to resolve these issues.

*Figure 4 - First Phase: Improve Staff Productivity*
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Status Report 2
Reduce Staffing Overheads
The Sterile Processing Department had always traditionally operated 24 hour processing. By analyzing volume and productivity reports in SynergyTrak, Sterile Processing Department managers concluded that 24 hour processing was not necessary. The immediate effect from removing the night shift included a decrease in operating costs. In February 2011, 13% of hours worked were associated to night shifts where technicians were getting paid a premium labor rate. By removing the 24 hour processing requirement, night shift hours reduced to 7% and continued to decrease over time. (Figure 4)

Figure 4 - Second Phase: Reduce Staffing Overheads

1) Using volume and productivity reports within SynergyTrak, management established that moving away from 24h production would be beneficial
2) Reduction in staff on night shift means a large reduction in unsocial hours worked
3) Reduction in FTE does not have adverse affect on production volume
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**Status Report 3**

**Targeted Peer To Peer Training**

Using the SynergyTrak Performance Center, Sterile Processing Department management was able to identify opportunities to carry out peer-to-peer training. These reports identified where there was the largest spread in average processing times for a given tray type, and calculated what trays offered the largest impact through achieving improved consistency. Best practice training was provided by Sterile Processing Department technicians to their peers.

Through targeted training IPOH steadily increased over the following years which allowed for a gradual reduction in staff.

*Figure 5 - Third Phase: Targeted Peer To Peer Training*
Conclusion

SynergyTrak provides automated data gathering and advanced analytics that allow technicians to have targets calculated and automatically set by tray type, based on the performance of the entire department team. Full visibility into each technician’s performance over time allows Sterile Processing Department manager to pinpoint poor performers and take actions accordingly. SynergyTrak reports can identify the average time taken to process trays and aggregate the data to show where the most opportunity is for targeted peer-to-peer training. In addition, technician statistics can be tracked such as night shift, temporary disability and temporary agency employee levels while providing an entire data history related to managing technicians over time.

At Royal London Hospital UK, the average number of full time employee’s was reduced from 93 to 63; a proportional reduction of 12% when accounting for volume differences between 2009 and 2013 using SynergyTrak. In conjunction with this, the Sterile Processing Department increased their average IPOH from 62 to 72, decreased their temporary disability rate from 6% to 1% and the total night shift hours from 15% to 4%.

Figure 6 - Trends