

Sterilising and Perioperative Clinical Redesign



Ante Blazetic, Sterilisation & Supply Department Donna Gara, NUM Perioperative Services Concord Repatriation General Hospital

Case for change

Sterilising & Supply Department (SSD) provides essential support to Operating Theatres. Comparative time periods between 2016 and 2017, showed a 50% increase in the total number of internal instruments processed through SSD, and 35% increase in the number of "loan sets".

The growing workload imposed on the two departments increased the risk of patient safety issues due to surgical delays and rescheduling combined with additional costly inefficiencies.

The departments were further impacted by backlog of unfinished work, inadequate human and technical resources, sterilising errors, long turnaround times for instruments, lack of staff continuous education and training, absence of standard protocols and lack of understanding of each department's work processes.

Goal

To identify inefficiencies and develop recommendations which improve the delivery of services within SSD and Operating Theatres.

Objectives

- To achieve a 15% reduction in the average "turn around" time from 28.4 hours to 24 hours for all standard instrumentation from decontamination stage to dispatch stage by August, 2018.
- To improve SSD staff satisfaction with their job by 50% (from 6.6% to 56.6%) by August, 2018.

Method

The project plan was developed following the clinical redesign methodology promulgated by the NSW Agency for Clinical Innovation.



We used data analysis, process mapping workshops, issue logs, staff interviews, focus groups and surveys to identify a number of key issues including workflow inefficiencies, profound staff dissatisfaction within SSD, education gaps, inter and intradepartmental faults in communication and staffing issues within SSD.

Acknowledgements

Project Sponsors – Vivienne Bush Director Corporate and Clinical Support & Sharne Hogan Director of Nursing

Redesign Leaders – Dimitra Kaldelis and Stephanie Laurent

Project Steering Committee Members

With special thanks to;

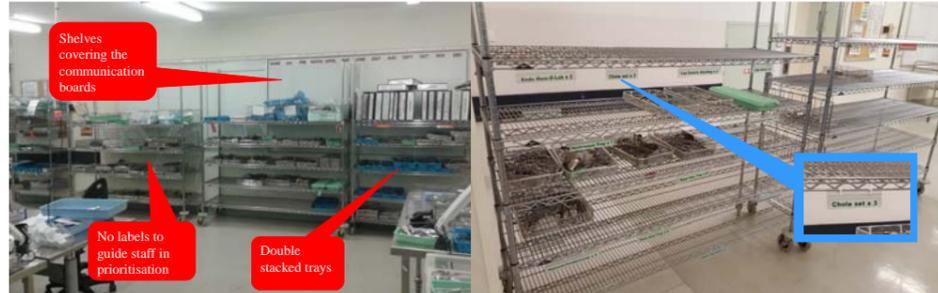
Michelle Skrivanic – Nurse Manager Perioperative Services

George Papadopoulos – Manager Sterilising & Supply Department

The staff from both the Sterilising & Supply Department and Operating Theatres

Results

Prior to this project the SSD was always congested with a huge backlog of trays to process, worsening as the week progressed, with weekends used as an opportunity to catch up. The pictures below show the dramatic difference which has occurred following the implementation of identified solutions and in particular the reconfiguration of physical layout of SSD, tray queuing system, and the introduction of effort saving measures.



Before
Build up of theatre trays awaiting to be processed from the day before - mid week, Aug 2017

After
Build up has been greatly reduced and tray types have been given specific labelled shelf space to promote easy prioritisation - June 2018

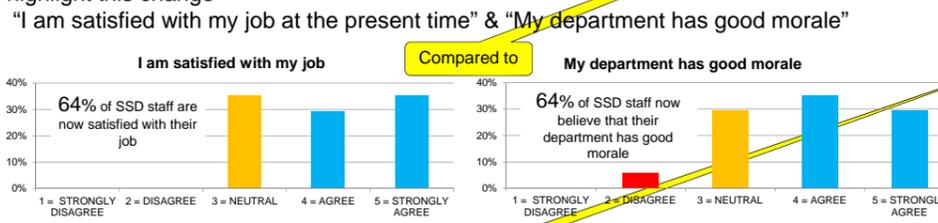


Before
Loan and consignment awaiting to be processed - July 2017

After
Loan and consignment sets backlog has been greatly reduced. Trolleys have been replaced by shelving - June 2018

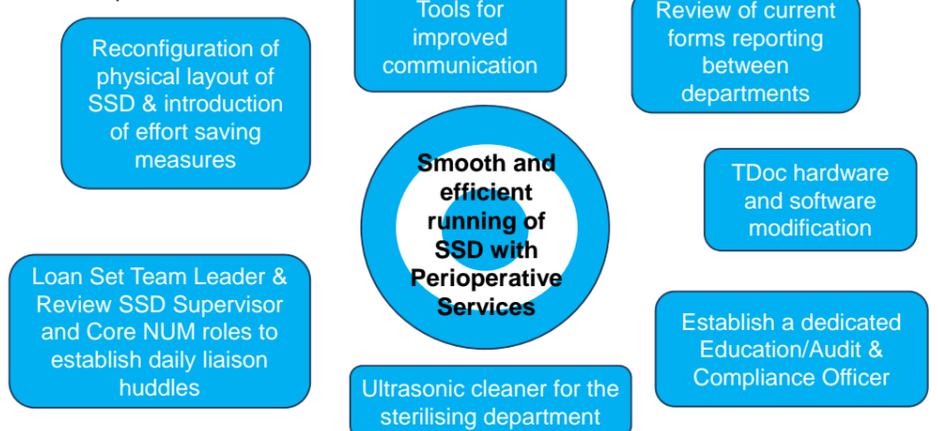
During diagnostics the average turnaround time for trays was 28.4 hours. By March 2018 this had been reduced to 25.84 hours. In May 2018 this had been further reduced to 19.93 hours.

Job satisfaction improved dramatically within SSD shown through staff surveys conducted in August 2017 and June 2018. The responses to the following two statements in particular highlight this change



Solutions

With analysis of the data shown through diagnostics, direct staff consultation through focus groups, staff interviews, surveys, workshops and issue registers, 7 groups of solutions were decided upon.



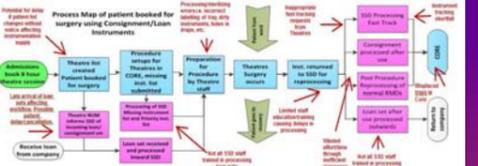
Contact

Donna Gara, Nursing Unit Manager| Operating Theatres| Concord Hospital
donna.gara@health.nsw.gov.au

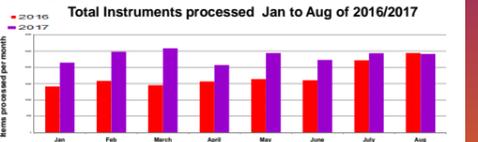
Ante Blazetic, Sterilisation Technician| Sterilising & Supply Dept.| Concord Hospital
ante.blazetic@health.nsw.gov.au

Diagnostics

The team used a variety of diagnostic tools such as process mapping, issue logs, staff interviews and focus groups to identify key issue areas and barriers.

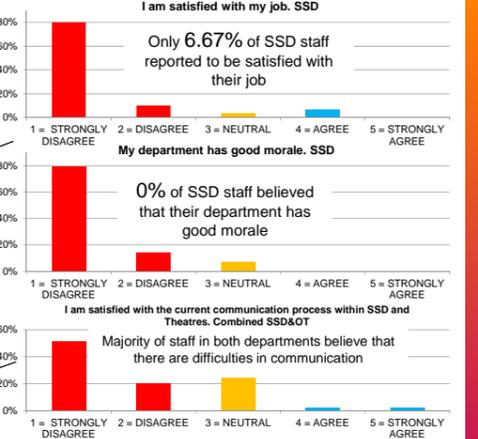


Analysing data supplied through the instrument tracking software (TDoc) showed a large increase in amounts of surgical instruments processed through SSD from 2016 to 2017.



It was also discovered through TDoc that the average turn around time for trays was 28.4 hours with, 69% of trays "turned around" within 24 hours; 21.5% took between 24 - 48 hours and 9.5% took longer than 48 hours.

And finally, a staff survey conducted in July 2017 showed the below findings:



Sustaining change

Stakeholders will be continuously informed of and involved in all changes being made, through staff meetings, notice boards and emails. Continuous consultation with SSD staff has been implemented, together with the daily interdepartmental huddle.

Recruitment to two new roles within SSD is designed to support ongoing compliance, learning and development.

We plan to offer all SSD staff an opportunity to either gain their Sterilising Certificate 3 or upgrade their current Certificate bringing all staff up to the latest standards of education in sterilisation provided by TAFE.

Conclusion

Lessons that we learnt.

Without access to comprehensive data, analysis of the current and ongoing condition becomes laborious and the picture gained can be incomplete.

Embedded practices are the most difficult to overcome in regards to effective operational change.

The most effective of solutions have also been the most easy to implement and would be the most translatable across other departments. These are linear work flow with effort saving measures and tools for communication.