GOOD SAMARITAN HOSPITAL

Caldwell Butler & Associates

Case Study

Good Samaritan searches for solution to ED overcrowding after best practices, ED redesign, and consulting fail to produce results

Good Samaritan Hospital, a 300 bed acute care hospital located in Lebanon, PA was facing an over crowded emergency department (ED) but was determined to reduce wait times and improve patient flow throughout its facility. Good Samaritan embarked on an initial strategy of implementing best practices in the ED. The ED team selected the recommendations cited in the Health Care Advisory Board's Clockwork ED. To the dismay of the team, implementing best practices did not produce meaningful reductions in patient wait times. Good Samaritan's second strategy involved a year long physical expansion and redesign of the emergency department facility. The expanded ED tripled the number of available exam rooms and included new patient tracking software to improve patient flow. In spite of the capital investment in the facility, old work patterns and procedures prevented Good Samaritan from realizing the full potential of their new building and achieving meaningful gains in performance. Good Samaritan then recruited the services of one of the country's leading consulting companies to develop a comprehensive plan and redesign ED workflow to optimize the layout of the new facility. For more than six months the consultants observed, interviewed and analyzed the performance of the ED to create an extensive report containing more than 150 recommended changes. Upon the consultant's presentation of the recommendations, the ED staff rejected the majority of the findings in the report and further progress was stalled.

Good Samaritan's Needs

- Reduce ED wait times
- Regain momentum and support for change
- Optimize utilization of the new ED
- Improve ED length of stay

100-Day Workout Improves ED Performance

Good Samaritan Hospital, with the support of Caldwell Butler & Associates (CBA), recently completed a highly successful 100-Day Quality Workout focused on "Quality Waste Recovery". During this first 100-Day Workout, Good Samaritan's staff identified potential gains of $6.4 million and implemented $4.3 million in tangible recovery for quality waste recuperation. Savings were tracked and validated by their finance department through the use of EXCELerator™. In addition, Good Samaritan saved 39 FTEs through the redesign of hospital workflow. With the ED initiative stalled, Good Samaritan's leadership requested that CBA design a 100-Day Workout as a means of gaining traction in the ED. CBA's goal was to design a workout that moved staff to action. Furthermore, success would require smooth implementation and techniques for improving the acceptance of proposed changes. Good Samaritan indicated it could not afford another long in-depth analysis or false start in the ED. Senior leadership desired assurance that rapid progress was made and momentum restored to the ED.

From Solutions through Implementation to Results

Accepting the challenge, CBA organized the ED staff into multidisciplinary teams each assigned responsibility for improving a sub-process of the ED workflow. The entire ED team was prepared for success by participating in an educational session exposing them to proven concepts for improving workflow. Participants were provided skills in rapid cycle testing to accelerate change. Each of the work teams reviewed potential solutions and recommendations related to their assigned challenge and selected changes in work processes to be rapid cycle tested. Ultimately, each sub-team was asked to group proposed changes into three categories as follows:

Category 1: Changes contained changes or solutions with relatively high team consensus on the best solution to implement. At the Kick-Off (Day 1) each sub-team was asked to develop a 100-Day Action Plan and design a method to test its effectiveness through Rapid Cycle Testing prior to the close of the day.

Category 2: Changes included processes and procedures the team agreed needed to be changed but could not decide what alternative solutions might be best. To overcome this hurdle, sub-teams were asked to narrow the list and identify two to three solutions they agreed would be implemented using the concepts of Rapid Cycle Testing. Rather than prolonging the discussion about the possible merits and pitfalls of each solution, they were coached to take action and test each solution using Rapid Cycle Testing. This approach allowed teams to end debate and quickly test Category 1 concepts. Instead of relying on opinion and speculation, the team generated real information on the impact of potential solution without delay.

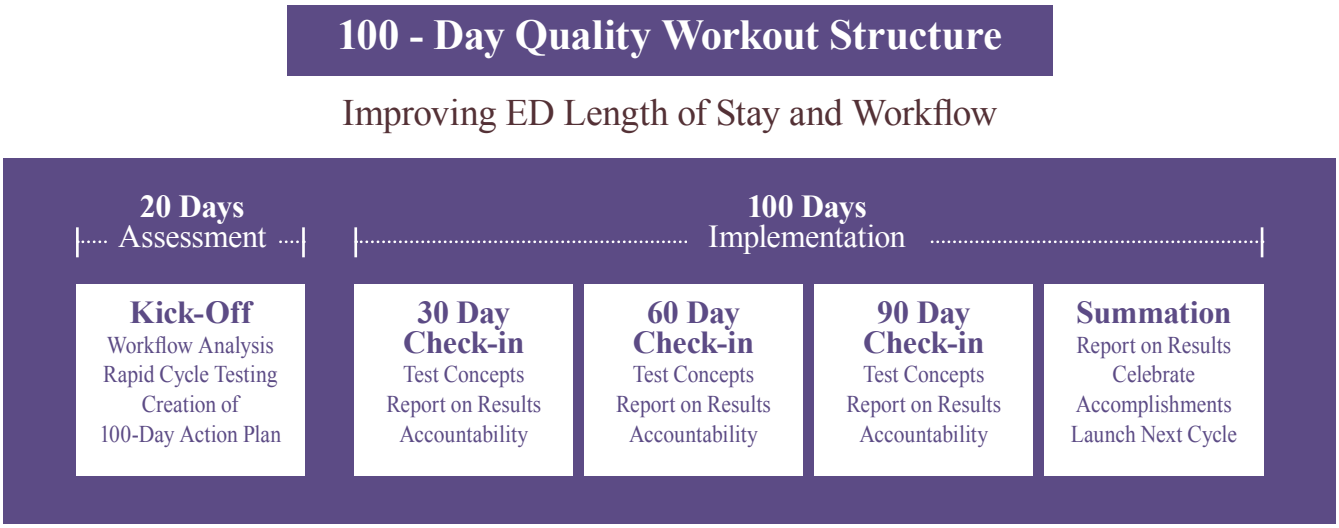
Category 3: Changes consisted of recommended changes for which there was genuine disagreement and a lack of consensus concerning the root causes of failure. Changes in Category 3 were temporarily isolated in order to allow the team to concentrate in areas where there was a higher probability of success. CBA's Lean-Six Sigma experts then developed a strategy for analyzing the workflow for subsequent 100-Day Quality Workouts.

This approach allowed Good Samaritan's staff to make rapid progress and gain traction. By the end of the first day, each team and individual team member developed a 100-Day Action Plan specifying what was to be accomplished by the 30, 60, 90 and 120 day check-ins. Each team had a list of changes to be made and a clear strategy for testing each proposed change. On a parallel path, CBA provided a Master Black Belt to provide in-depth analysis using the techniques of a Data Summit and 14-Day Longitudinal Study to develop a comprehensive understanding of the issues listed in Category 3. This allowed the team to make progress and gain success in implementation while more extensive analysis consistent with Lean-Six Sigma's DMAIC (Define-Measure-Analyze-Improve-Control) process was deployed on the more intricate issues.

Application of the 100-Day Quality Workout

The 100-Day Quality Workout was employed as the system for driving implementation. The structure of the 100-Day Workout provided accountability and a consistent method for tracking the progress and accomplishments of each sub-team. At the Kick-Off meeting, CBA provided all the teams with training in methods for improving workflow as well as Rapid Cycle Testing. The Rapid Cycle Testing curriculum was designed to reduce the normal concerns and fears that impede change and protect the status quo. Participants were divided into sub-teams and each assigned to improve a sub-element of the ED's work processes. After selecting improvement strategies, each team designed rapid cycle experiments to test the proposed changes. Each team had completed their 100-Day Action Plan by the end of the Kick-Off meeting. The 30, 60 and 90 day check-ins provided each team the opportunity to review their progress and discuss any issues with their peers. Each check-in allowed senior management an opportunity to monitor progress and take any corrective action necessary to ensure progress was achieved.

The 100-Day Quality Workout was organized as follows:



Tangible Results in the first 100 Days

The ED was able to provide care without an increase in resources in spite of a 10% increase in patient volume. In the midst of this growth in demand, the teams were able to lower average length of stay by more than 20 minutes. The number of patients who left without treatment (LWBS) declined from seven per day to zero per day by the end of the first 100-Day Quality Workout, recapturing more than $1.5 million in lost revenue. The ED staff successfully Rapid Cycle Tested new protocols improving co-payments collected at the time of visit from $49.60 to $188.50 per day.

Gains in Performance

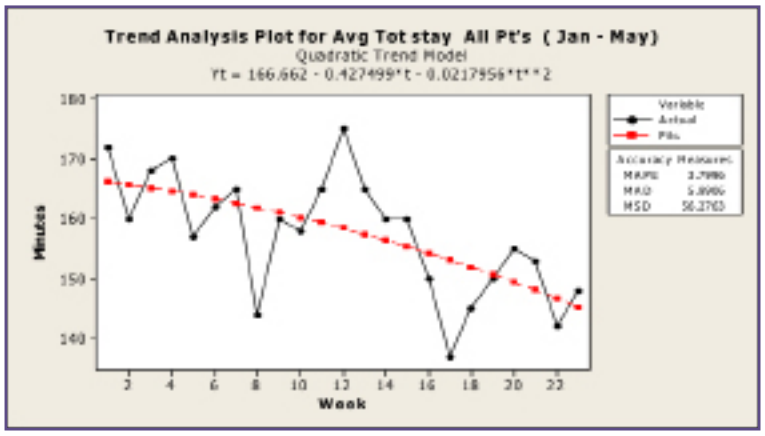
- LWBS dropped from 10-7 patients per day by the end of the workout period recapturing $1.5 million in revenue from lost admissions. (7 LWBS x 365 Days x 30% Adm. Rate x 2,000 per Adm.)
- Patient satisfaction top box scores improved 8%
- ED LOS was reduced by more than 20 minutes for triage level 2 and 3 patients. (Fig. 1)
- Gains occurred while absorbing a 10% increase in patient volume with no additional staff.

  Time from arrival to room decreased from 46 min. to 38 min. (18% improvement) for triage levels 2 and 3; Fast Track and triage level 1 patient arrival to room is less than 10 and 5 minutes, respectively.

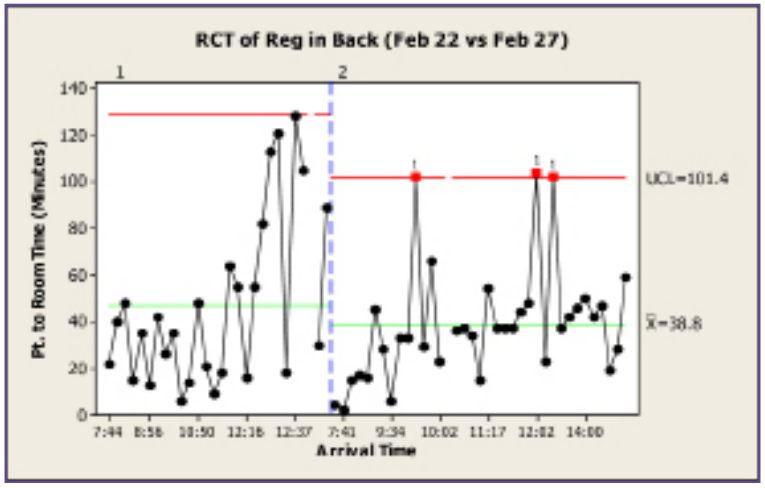
  The Health Care Advisory Board indicates that arrival time to room is the number one reason for LWBS. (Fig. 2)

  Use of internal ED tracking board was greatly increased allowing ED staff to leverage the $47,000 prior investment and increasing patient flow.
- Implemented 120 of the 150 prior recommendations; gained momentum for change and avoided further analysis paralysis.

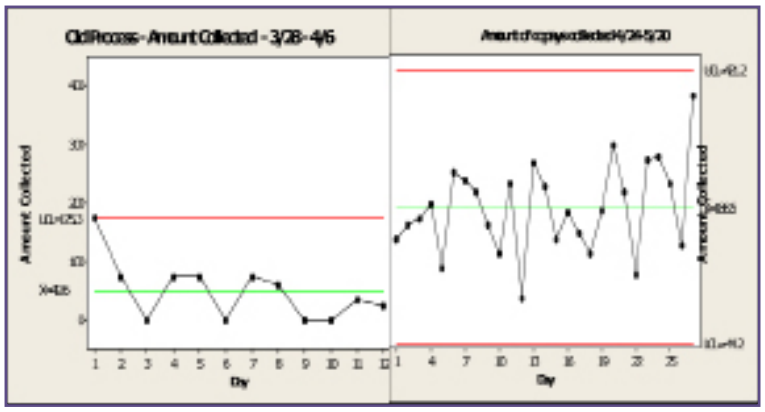
Improvement in ED LOS (Fig. 1)



Rapid Cycle Test Results of New Registration (Fig. 2)



Rapid Cycle Test Results of New Co-Pay Procedure (Fig. 3)



Caldwell Butler
& Associates

For additional information, contact:

Greg Butler
832.372.2465
gregb@CaldwellButler.com
or visit:
CaldwellButler.com

Caldwell Butler & Associates, LLC

Caldwell Butler & Associates is an innovative firm specializing in strategic deployment of Lean-Six Sigma resulting in cost position improvement, financial turnarounds, and patient throughput optimization. Caldwell Butler & Associates has assisted hundreds of clients increase productivity, maximize patient throughput, and improve patient satisfaction. Our team is exclusively dedicated to healthcare and brings extensive practical experience in hospital operations to each project. Our knowledge of the healthcare environment allows us to implement effective performance improvement programs tailored to the specific needs of your organization. Caldwell Butler & Associates is the trainer of choice for both the American College of Healthcare Executives and the American Society of Quality. During the past decade, Caldwell Butler has personally trained thousands of senior hospital executives in the effective healthcare application of Lean-Six Sigma. Chip is a nationally recognized author of four leading books and served as the healthcare representative on the U.S. Quality Council.

Unlike traditional consulting firms, Caldwell Butler & Associates believes on-site mentoring and apprenticing are the most effective methods for achieving sustainable gains in performance. Our on-site programs empower your employees by providing them with the tools to attain new levels of performance. We offer proven techniques and methods for enhancing personal accountability, monitoring progress of initiatives and tracking your ROI on each project. Where most consulting firms are satisfied with finding “identified savings,” Caldwell Butler & Associates works along side your team throughout implementation thus providing you with a sustainable process for managing the entire productivity improvement cycle.

Caldwell Butler & Associates apprenticing and mentoring programs include:

- Effective use of aggressive benchmarking data
- Proven techniques for non-negotiable goal-setting
- Methods of identifying waste and generating cost savings strategies
- Creation of implementable 100-Day Action Plans
- Flawless execution of performance improvement projects
- Creation of internal tracking methods for enhancing personal accountability