Carter BloodCare Deploys A Key Tool to Tackle Cost Challenges

Edward Latson
Texas Manufacturing Assistance Center

How did Carter BloodCare achieve over $950,000 in process savings and cost avoidance, increase productivity, and create a more useful, efficient work space? They embraced a methodology that has been used in the highly competitive manufacturing industry for decades: LEAN.

Established in 1998 Carter BloodCare is Texas' largest blood center, providing more than 300,000 units of lifesaving blood components annually. Their main facility in Bedford, Texas is equipped to store, process, and test all blood components before distribution to over 250 Texas health care organizations.

Growth and expansion had severely affected the need for additional space. Yet, they faced pressure to reduce costs while increasing productivity. Management had been searching for a tool to meet these challenges. After attending a LEAN 101 seminar presented by Texas Manufacturing Assistance Center, they were inspired to explore LEAN as a means to drive a culture of process improvement throughout the organization.
In engineering terms, LEAN is a systematic approach to identifying and eliminating waste (non-value added activities) through continuous improvement by flowing the product at the pull of the customer in pursuit of perfection. In layman terms, LEAN is an established system for identifying problem areas, eliminating needless work, and creating a logical, efficient process that serves the needs of the customer and the bottom line of the business.

Two TMAC LEAN specialists assisted Carter BloodCare with developing a plan to achieve their goals. The scope of the first project was to implement LEAN methodologies in three areas: Records Audit and Data Entry (RADE), Reference and Transfusion (RT), and Component Processing. Three teams consisted of people from the specific departments and a handful of cross departmental staff. TMAC helped each team complete time studies and develop a value-stream map of the current process. Spaghetti diagrams were completed for each major process to help visually display inefficiencies of the 'current state'. Using the DMAIC method (define, measure, analyze, improve and control) teams were then asked to develop a 'future state' map to improve processes and eliminate waste. Using this process, each team identified ways to eliminate process bottlenecks, improve cycle times and increase capacity in their current space.

The component processing lab completely redesigned their process flow. They will have the ability to process nearly twice the volume in less floor space. In addition, batch size reduction in component

processing has allowed for less variation resulting in a reduction of lost components from expired production times. RT experienced similar results and will have the capacity to double their volume in the existing floor space. The department was able to reduce “process travel time” from 780 steps to 165 steps. The RADE department reduced cycle time from 24 hours to approximately 13 hours and has eliminated the need for staffing on third shift. All audit functions are now completed by 1:00 a.m. as opposed to 6:30 a.m. In addition, they have reduced the number of units placed on hold because the entire process has
improved.

Prior to the projects, the three departments insisted on the need for space to accommodate growth. After the projects, they increased capacity in each department and ameliorated the need to expand the facility. Across the board, the departments are realizing improvements in process and space utilization.

Management is happy with the success. The inclusive approach allowed the staff to be intimately involved in the improvements. Because of this, they have reported increased job satisfaction and feel a greater sense of worth. Carter BloodCare found the right tool, proving yet again that the effectiveness of LEAN is no longer a secret just for manufacturers.