FRESENIUS MEDICAL CARE NORTH AMERICA

Peritoneal Dialysis Device Refurbishment Lean Transformation

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Fresenius Medical Care North America (FMCNA), which generated $21.97 billion dollars in 2017, provides healthcare services for chronically ill patients across North America with more than 2,200 dialysis facilities. In addition, FMCNA offers pharmacy and laboratory services, and manufactures a comprehensive line of dialysis equipment and renal pharmaceuticals. The Concord, CA, facility manufactures new dialysis devices and equipment including Peritoneal Dialysis (PD) Devices, Hemodialysis (HD) Devices, Dry Concentrate Mixing Systems, and CLiC crit-line monitors. It is also responsible for refurbishing used PD Devices.

Refurbishment occurs when a customer returns a cycler for a variety of reasons and Fresenius refurbishes the device to make it fit for customer use again. The increase in demand for the Liberty Cycler PD Machine has led to opportunities to make the refurbishment process more efficient and reduce cost. The goal of this project was to improve the quality of refurbished cyclers while maintaining compliance, with emphasis on long-term cost savings and continuous process improvement.

The team began this project by creating a value stream map of the current refurbishment process and using data from enterprise software to determine the average cost of refurbishing a cycler. Based on the value stream map, and a kaizen event held with operators from the production floor and Manufacturing and Quality Engineers, the team identified projects that would have a direct impact on quality, compliance, and cost. The team then created implementation plans for these projects and began pilot programs to test the effectiveness of the proposed projects.

The implementation of piloted projects and recommendations will increase first-pass yield and reduce the number of times a cycler is touched during refurbishment, increasing quality and maintaining compliance. The projects also helped to increase communication between departments and promote a culture of continuous improvement. The total cost savings realized by the full implementation of the pilot projects and the recommendations are estimated to be a 6% reduction in refurbishment cost, amounting to $2.4M annually and a one-time cost savings of $425,000.