**Case Study – Leader Standard Work in Practice**

As part of a quality improvement project, we incorporated Leader Standard Work (LSW) after hospital leadership raised concerns regarding Emergency Department (ED) throughput and higher than acceptable rates of patients leaving without treatment being completed (LWOT). Using LSW principles, we were able to implement changes that improved both throughput and LWOT levels. The concept of Leader Standard Work was first introduced to the medical director for schedule alignment. The vice-president and Chief Medical Officer dedicated time at the monthly directors meeting to introduce LSW concepts to initiate the discussion of the reasoning for it as well as the expectations once the exercise was completed. Reporting of these results was approved by the Allegheny Health Network Institutional Review Board.

**Calendar Alignment**

After initial group discussions, team members (SK and VHS) met to align calendars. The ED medical director was familiar with Lean concepts as she had completed the calendar alignment exercise at a previous site where she was a medical director so her calendar was already organized and required no alterations. This medical director was aware of the need to group meetings as much as possible, limit clinical overnight shifts before important hospital meetings, allow time for office work, and build into the schedule time for Leader Walks. The medical director had built a standard, repeatable schedule that allowed dedicated time for Leader Walks as well as life-work balance.

**Visual Management Tools**

The medical director (VHS) and project lead (SK) established an initial cadence of meeting each week for 1-2 hours per meeting for three weeks to observe processes in the department, review metrics and discuss with staff the bottlenecks and challenges with the current processes. The medical director met with the nursing director (EG) to include her in the process and worked to gain her input and buy in for the process changes. The medical director and project lead built flow documents that detailed the front-end process as well as education documents for other department flow initiatives (Supplemental Digital Content 1 and 2). These were key visual management tools for conveying the process and identifying areas for improvement. Staff education for a vertical care area and results pending area were also created. All documents were reviewed with the Chief Nursing Officer during regularly scheduled monthly flow meetings to gain further input. Initiatives were then finalized and implemented.

**Leader Walks**

The ED nursing director and the medical director met with the charge nurses two times per month to discuss ideas and prepare them for implementation. Staff meetings occurred monthly where new concepts were introduced and discussed prior to implementation. Visual management tools (e.g. flow-diagrams) were shared with the charge nurses, staff, and providers prior to starting any new initiative. The medical director conducted Leader Walks twice a week with the nursing director to directly observe recently implemented processes during her regular scheduled cadence. The medical director and project lead would conduct Leader Walks when onsite together twice a month Through the Leader Walks, breakdowns in the newly established processes were identified and staff were held accountable. Over a two-month period (July-August 2019), the Leader Walks became consistent during which time the staff and providers became accustomed to them. The Leader Walks provided an opportunity for both staff and providers to provide input and identify barriers to the ED Leadership team on a number of processes related to ED throughput and LWOT rates.

**Results**

We began implementing LSW principles in May 2019 and continued through July 2019. The processes identified by leadership and staff led to a number of implementations including a direct bedding process. From April 2019 (last month before LWS principles were introduced) to August, median door to provider times improved from 25 minutes to 17 minutes (p<0.001; Appendix 1-A). LWOT rates dropped from 3.51% in April 2019 to 1.33% in August (p<0.001; Appendix 1-B). The overall median length of stay decreased from 195 minutes to 161 minutes over the same time period (p<0.001; Appendix 1-C). These initiatives lead to a rapid and sustained improvement in these metrics through the remainder of 2019.

Appendix 1 – Multiple metrics improved during the time Leader Standard Work principles were initiated including Door to Provider times (Appendix 1-A), left without treatment (Appendix 1-B) and overall length of stay (Appendix 1-C)

Appendix 1-A

Appendix 1-B

Appendix 1-C