P1-29: Reducing Standard Work to Increase Nursing Care Time in a Clinic Setting

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**Abstract:**
**Introduction:** Despite the success of Toyota Production System (TPS) methodology in improving manufacturing processes, there is limited application in health care, especially in improving nursing work processes. In a radiation oncology clinic, the uneven, often frenzied pace of work created an opportunity apply TPS, commonly called lean management, to test its usefulness in nursing. The purpose of the project was to study TPS methodology in a nursing environment, to determine whether more nursing staff were needed, and to eliminate waste, thus decreasing time per standard work cycle.

**Method(s):** 1)Followed patients, therapists, nurses and physicians, observing processes. 2)Mapped the value stream. 3)Documented nursing standard work 4)Timed the patient flow and nursing processes. 5)Collected data on number of nurses, minutes nurses work per day, the number and types of patients per day and the minutes spent from check-in to discharge.
6) Carried out intervention: took control of queuing process. 7) Compared patient clinic minutes and the nursing care minutes before and during the intervention. 8) Calculated weighted average cycle times for patients and nurses to determine staffing needs.

**Results:** After identifying and quantifying a standard work cycle and applying a lean improvement at the computer queuing station, nursing time was significantly reduced for each type of patient without reducing face-to-face patient time. Nurse staffing changed from 1.29 to .9 nurses per 50 patients after the pilot project. (Tables included on poster.)

**Discussion & Conclusions:** The project demonstrated how TPS management concepts could be used in nursing and to improve a cancer clinic’s efficiency. The pilot documented standard work and reduced the work cycle time for nurses. It clarified the nursing work and identified interruptions and irregularities of work flow that could be addressed with future pilots. By dedicating an administrative position to the queuing computer, the project decreased nursing minutes of work per patient without reducing value added time. The associated change in full-time equivalent units (FTEs) from nurse to clerk could reduce cost to the clinic without reducing nursing value added time with the patient.

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