Implementation of lean processes shows potential to reduce surgical wait times at VA hospitals

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In a study published online by *JAMA Surgery*, Andrew C. Eppstein, M.D., of the Indiana University School of Medicine, Indianapolis, and colleagues examined whether lean processes can be used to improve wait times for surgical procedures in Veterans Affairs hospitals.

The Veterans Health Administration (VHA) is the largest integrated health care network in the United States, providing a unique system of health care delivery and access to 9 million veterans. However, it has come under increased media scrutiny over the past 2 years for delays in scheduling, lengthy patient wait times, and lack of access.

In this study, various databases were examined to assess changes in wait times for elective general surgical procedures and clinical volume before, during, and after implementation of lean processes over 3 fiscal years (FYs) at a tertiary care Veterans Affairs medical center (Richard L. Roudebush Veterans Affairs Medical Center, Indianapolis). The surgery service and systems redesign service performed an analysis in FY 2013, culminating in multiple rapid process improvement workshops. Multidisciplinary teams identified systemic inefficiencies and strategies to improve interdepartmental and patient communication to reduce canceled consultations and cases, diagnostic rework, and no-shows. High-priority triage with enhanced operating room flexibility was instituted to reduce scheduling wait times. General surgery department pilot projects were then implemented mid-FY 2013.

The researchers found that average patient wait times for elective general surgical procedures decreased from 33 days in FY 2012 to 26 days in FY 2013. In FY 2014, average wait times were half the value of the previous FY at 12 days. This was a 3-fold decrease from wait times in FY 2012. Operative volume increased from 931 patients in FY 2012 to 1,090 in FY 2013 and 1,072 in FY 2014. Combined clinic, telehealth, and e-consultation encounters increased from 3,131 in FY 2012 to 3,460 in FY 2013 and 3,517 in FY 2014, while the number of no-shows decreased from 366 in FY 2012 to 227 in FY 2014.

"This study demonstrated a significant reduction in patient wait times for surgical procedures and an improvement in access in the clinical and operative settings when implementing lean processes. The improvement gained was noted over multiple areas and seen during the implementation of new technologies. The changes in the measured outcome categories occurred early, and the differences were sustained across the entire observation period," the authors write.

"Improvement in the overall surgical patient experience can stem from multidisciplinary collaboration among systems redesign personnel, clinicians, and surgical staff to reduce systemic inefficiencies. Monitoring and follow-up of system efficiency measures and the employment of lean practices and process improvements can have positive short- and long-term effects on wait times, clinical throughput, and patient care and satisfaction."

More information: Nakul P. Valsangkar et al. Effect of Lean Processes on Surgical Wait Times and Efficiency in a Tertiary Care Veterans Affairs Medical Center, *JAMA Surgery* (2016). DOI: 10.1001/jamasurg.2016.2808