

Lahey Clinic Medical Center Significantly Improves On-Time Surgeries in 30 Days



Lahey Clinic Medical Center, located in Massachusetts, consists of a 328-bed academic medical center and ambulatory surgery center. Picas CareSuite high-acuity solutions have been used at these locations beginning with OR Manager in 2003, Extelligence and SmarTrack in 2004 and 2007, and Picas Perioperative Dashboard in 2008.

Using dashboards to improve perioperative efficiency

Operating rooms are a major source of hospital revenue and cost consumption, underscoring the need for efficient use of resources and clinical staff. However, healthcare organizations struggle to maintain high OR utilization rates due to the unpredictable nature of the perioperative environment and patient flow. Each day, ORs face logistical challenges, including late case starts, delays, add-on cases, cancellations and other unanticipated events that make it difficult to align clinician and patient schedules with available operating rooms and resources. This can negatively impact productivity, clinician and patient satisfaction, and hospital finances. Like many medical centers, Lahey Clinic is embracing business intelligence as a tool to address operational issues, particularly first case delays.

“Business intelligence and clinical analytics are among healthcare’s next major challenges. Dashboards that highlight important “here and now” indicators relevant to front line clinical champions and service line managers allow hospitals to gain more value from transactional systems by understanding process breakdowns and acting more quickly to address them,” notes Vi Shaffer, vice president, Gartner, Inc.

Quick Profile

Lahey Clinic Medical Center

Institution profile:

Multifacility academic medical center with 29 ORs and 20,000 surgical cases performed annually

Key business/clinical drivers:

Find innovative ways to address operational issues including first case delays, staff mobilization and management and communication between team members

Lahey initiatives:

- Performance improvements utilizing the *Lean Process Improvement Methodology*
- Adjustments in staff/patient scheduled hours
- Multidisciplinary approach

Picas solutions:

CareSuite® modules: OR Manager, SmarTrack®, Picas Perioperative Dashboard and Extelligence

Results:

- Improved on-time first case starts from 45-50% to 80-85%
- Reduced phone calls to family waiting room by 60%
- Reduced patient wait times
- Improved staff morale



► Proactive patient tracking

In 2007, Lahey Clinic began using Picis SmarTrack, an interactive tool for tracking surgical patients throughout the perioperative process. Using the system to track four significant preoperative milestones (patient checked in, patient on stretcher, patient to OR and patient in OR) the medical center was able to gain better visibility of the patient status at stages within the perioperative process. Previously, a preoperative nurse would call out into the patient waiting area every 20 minutes to bring patients into the area. Now with SmarTrack, once a patient has checked in with admissions, a preoperative nurse can immediately see this information and collect the patient from the waiting area. As a result of SmarTrack, the hospital has significantly improved patient wait times for surgery and reduced phone calls to the family waiting room by 60 percent (an estimated 50 calls per day).

Eliminating first case delays

In early 2008, as part of an overall process improvement initiative, a team was put into place to examine the delivery of perioperative care. Borrowing A3 thinking (a *Lean Process Improvement Methodology* based on the scientific method of problem solving), an intra-departmental team was assembled to identify problems and brainstorm potential solutions. The perioperative team chose to zero in on first case late starts because gathering first case delay information was cumbersome and often took up to 48 hours to pinpoint. Additionally, the ramifications of first case delays are numerous with costs averaging \$13 and revenue averaging \$25 for each minute an operating room is delayed.

In March, Lahey Clinic installed Picis Perioperative Dashboard, a system that provides business activity monitoring in a highly visible display, leveraging data from OR Manager and SmarTrack.

Prior to the process improvement initiative and implementing Picis Perioperative Dashboard, first case on-time start percentages were 45-50%. Using the dashboard and its up-to-date speedometer dials that display key indicators for the OR including case times and turnover times, staff can now see first case delays displayed immediately when the “patient in room time” is entered into the case record. This allows Lahey Clinics’ OR leadership team to gain much-needed visibility into the reasons for first case delays.

Information obtained through real-time business activity monitoring can then have a greater impact on ‘on time starts’ and other performance metrics compared with information obtained hours or days later.

By instituting Picis Perioperative Dashboard and several process changes, Lahey Clinic improved their first case on-time starts to 80-85%. With 29 operating rooms, the impact this has on hospital finances and efficiency is significant.

Advanced daily planning for staffing

By utilizing the dashboard indicators for ‘expected room shut-down,’ ‘room turnaround’ and ‘forecast room utilization,’ the management team at Lahey Clinic has been able to better anticipate, plan and mobilize staff throughout the day to keep things running smoothly. The assistant nurse manager uses dashboard

indicators frequently to adjust staffing needs at 3:00 p.m. or 5:00 p.m. based on expected shutdown indicators. The dashboard information enables her to send extra staff to rooms that are turning over and to easily identify at-a-glance rooms that need more help.

Additionally, the nurse manager and scheduling coordinator can forecast up to three weeks in advance and adjust staffing numbers as needed based on the ‘forecast room utilization’ indicator, which highlights busier days. The dashboard has enabled the medical center to achieve its goals to get staff out on time, decrease frustration and improve staff morale. It has been extremely well-received by hospital and nursing leadership.

Working as a team

“Picis Perioperative Dashboard has added a level of visibility and, therefore, accountability,” notes Janet Burke, OR systems manager. “The dashboard is not punitive in nature; rather, we are using it as a tool to collaboratively enable process change.” Lahey Clinic also uses the tool for providing positive feedback. For example, if a staff member has four out of five cases start on time, the perioperative management praises those individuals. Surgeons are now on time and perioperative teams are proactively notifying the charge nurse of any team issues. “This is a real cultural shift for us.” ■

“Picis Perioperative Dashboard enables me to track patient flow and supervise process improvement initiatives as they happen. The interactive multi-module reporting and easy-to-read indicators display the current state of our OR with visual graphs. At a glance, performance measurements enable me to identify and address issues immediately.”

*Deborah A. Zarrella RN MSN,
associate chief surgical services,
Lahey Clinic Medical Center*

For more information, visit www.picis.com or call 781 557 3000.