Perioperative Throughput East Campus Team

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HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

TAP TO GO BACK TO KIOSK MENU

Background

The objective of this project was to improve throughput of patients in all phases of the perioperative process.
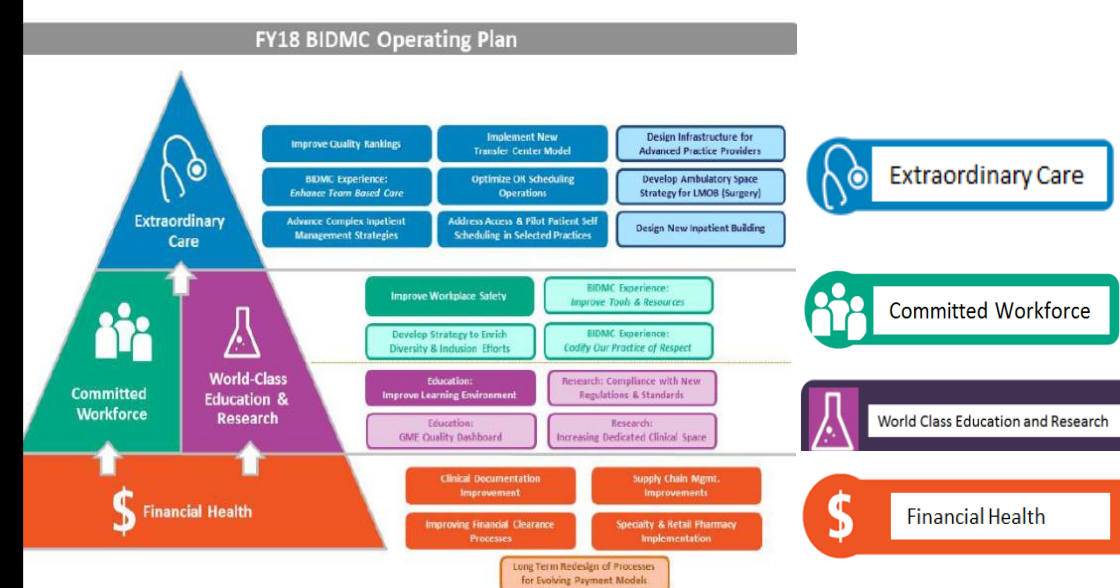
(pre-op, intra-op, and post-op)

Prolonged throughput impacts:
- the patient and family experience
- team cohesion and satisfaction
- overall efficiency
- finances

Goals

1. Create a culture of teamwork and interdisciplinary collaboration: turnover time is not just "cleaning the room."
2. Assess barriers to throughput in each phase of care.
3. Enhance dashboard functionality for improved visual cueing of patient progression.
4. Reduce average turnover time in the operating room to the following targets *(wheels out to wheels in)*
   - Feldberg OR's: 36-minutes
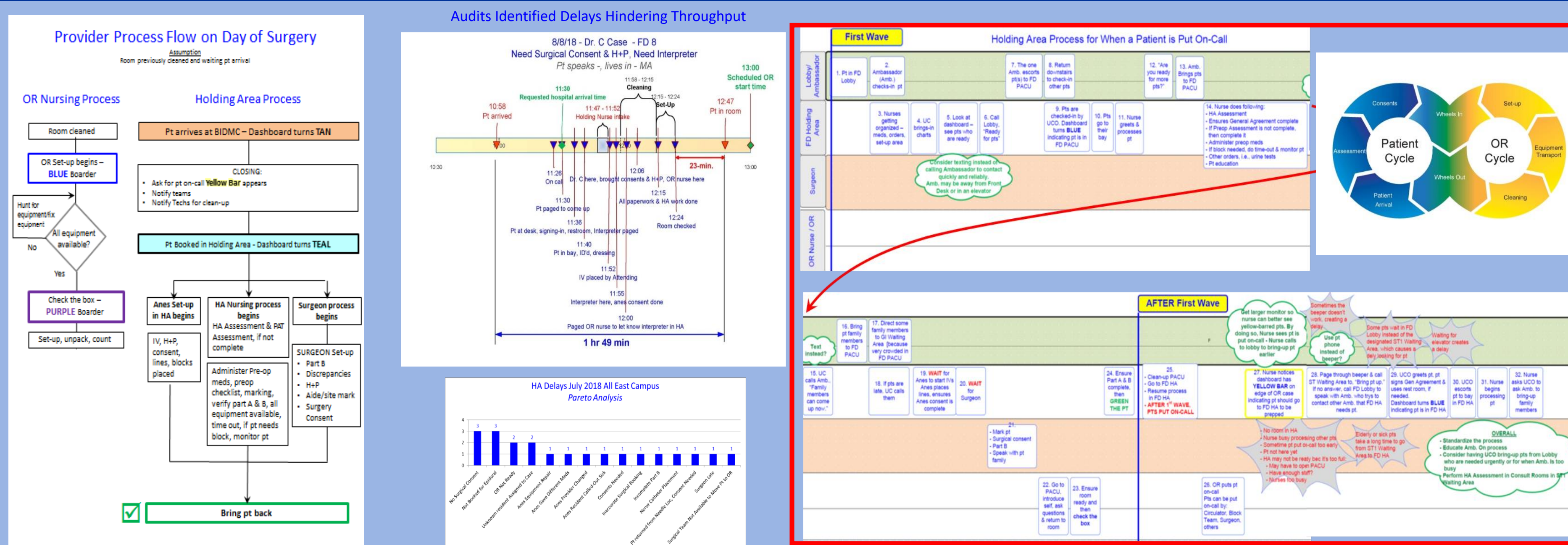   - Shapiro OR's: 29-minutes

Annual Operating Plan

Team

Title
Associate Chief Nurse, Operating Rooms
Nursing Director
Assistant Nursing Director
Administrative Clinical Advisor
Sr. Management Engineer
Director of Clinical Operations- East
Anesthesiologists
Surgeons
Nurses
OR Attendant Supervisor
Analyst
Unit Based Educator, East Campus

Analysis

Audits Identified Delays Hindering Throughput

Provider Process Flow on Day of Surgery

HA Nursing Delays July 2018 All East Campus — Pareto Analysis

First Wave — Holding Area Process for When a Patient is Put On-Call

AFTER First Wave
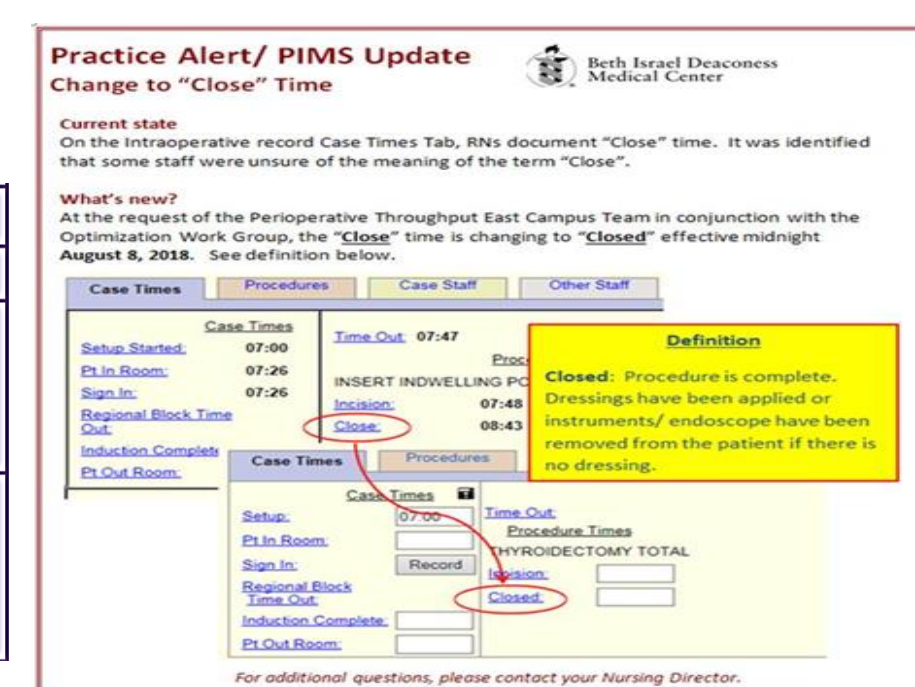
Education/Awareness

Added Section to Morning Huddle Report to Raise Awareness of Need to Reduce Turnover Time

Delays in Room	
ORs targeted for Turnover	Shapiro 7, Feldberg 9
Yesterday	1 room finished by 1700
	F1
Targeted TOT results	S3 & S4 not done by target 1700, but turnover times were EXCELLENT
Thursday report of last week's Turnover Times (TOT)	Feldberg: 42 mins
	Shapiro: 30 mins
	Cysto: 30 mins

Practice Alert/ PIMS Update — Change to "Close" Time

Calling for Turnover - *Education*

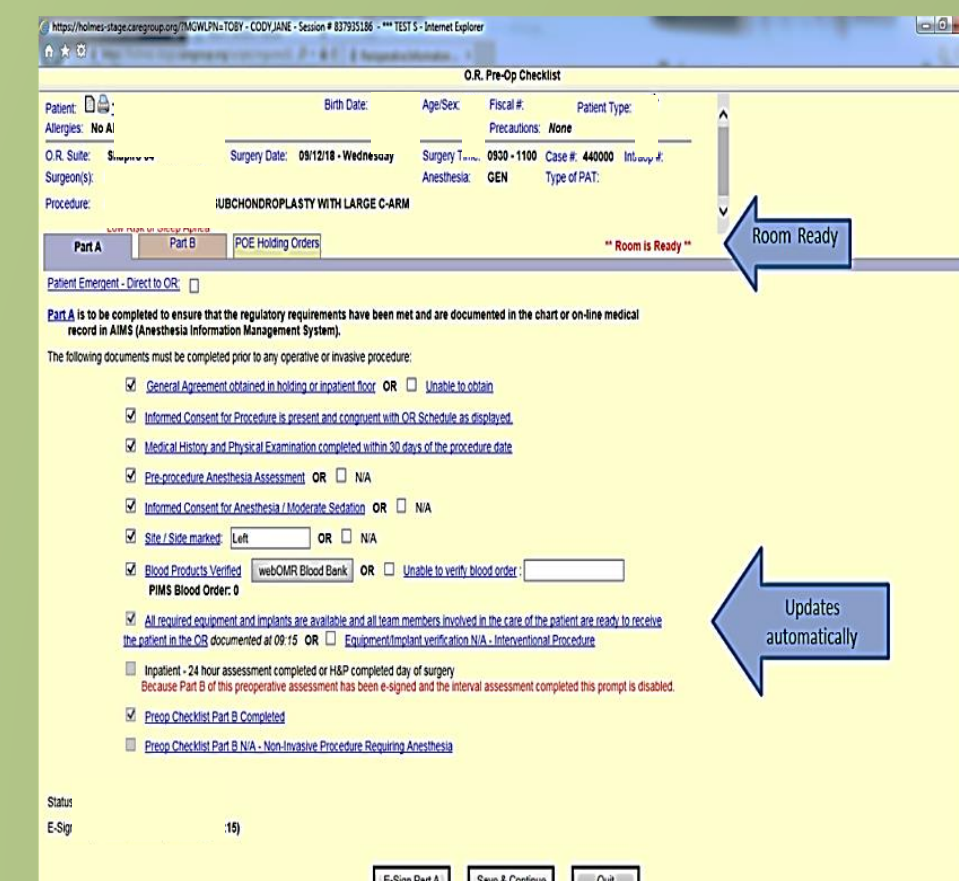New Turnover Process: Closed

Interventions

1. **"Room Ready" Language Intervention**
   - Changed to reflect an indicator helpful to efficiency:
   - All **equipment and implants are available** for immediate use AND all team members involved in the care of the patient are **ready to receive the patient** in the OR.
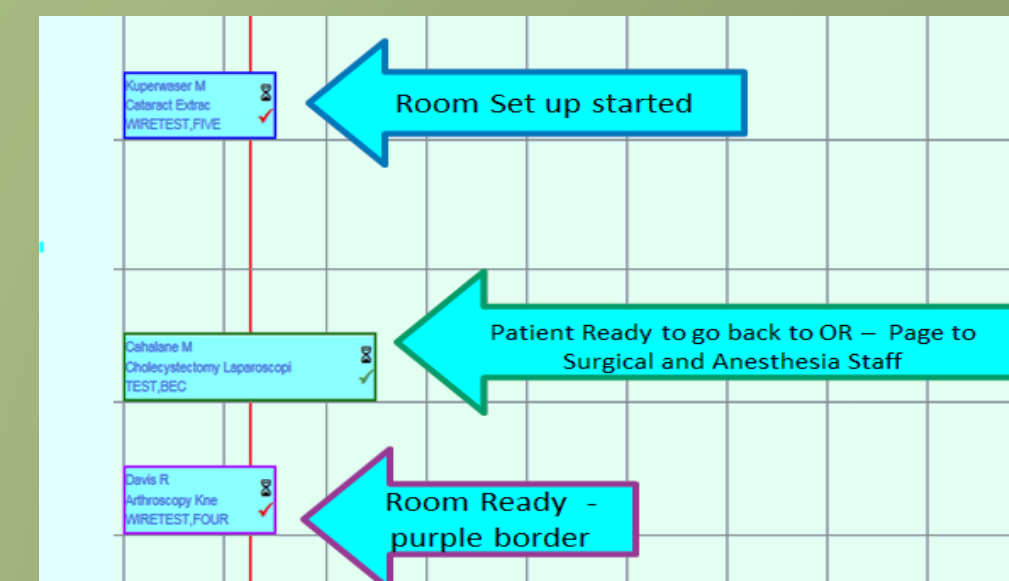
2. **Page to Roll-Back**
   - Implement alert **[page] to reduce delays getting surgical team into room** when both the "Room Ready" checkbox is checked AND when the Preop Checklist is completed.

3. **Turn Over Time Intervention**
   - Standardization of when to call for turn-over. Changed **"Close" to "Closed"** to be more reflective of a completed state of the surgery.
   - **At closed, the care of patient is now in the hands of anesthesia and nursing.** A call to the OR front desk for turn-over assignment is made. OR Attendant staff to come into the room and **assist with patient care under the direction of the nurse.**

Room Ready (Page) Alert

Pre Op Checklist enhanced with 'Room is Ready' alert.
Checklist will update automatically when Room Ready is checked in Intraop.
Equipment statement now includes language stating all staff involved in patient care are ready to receive patient.

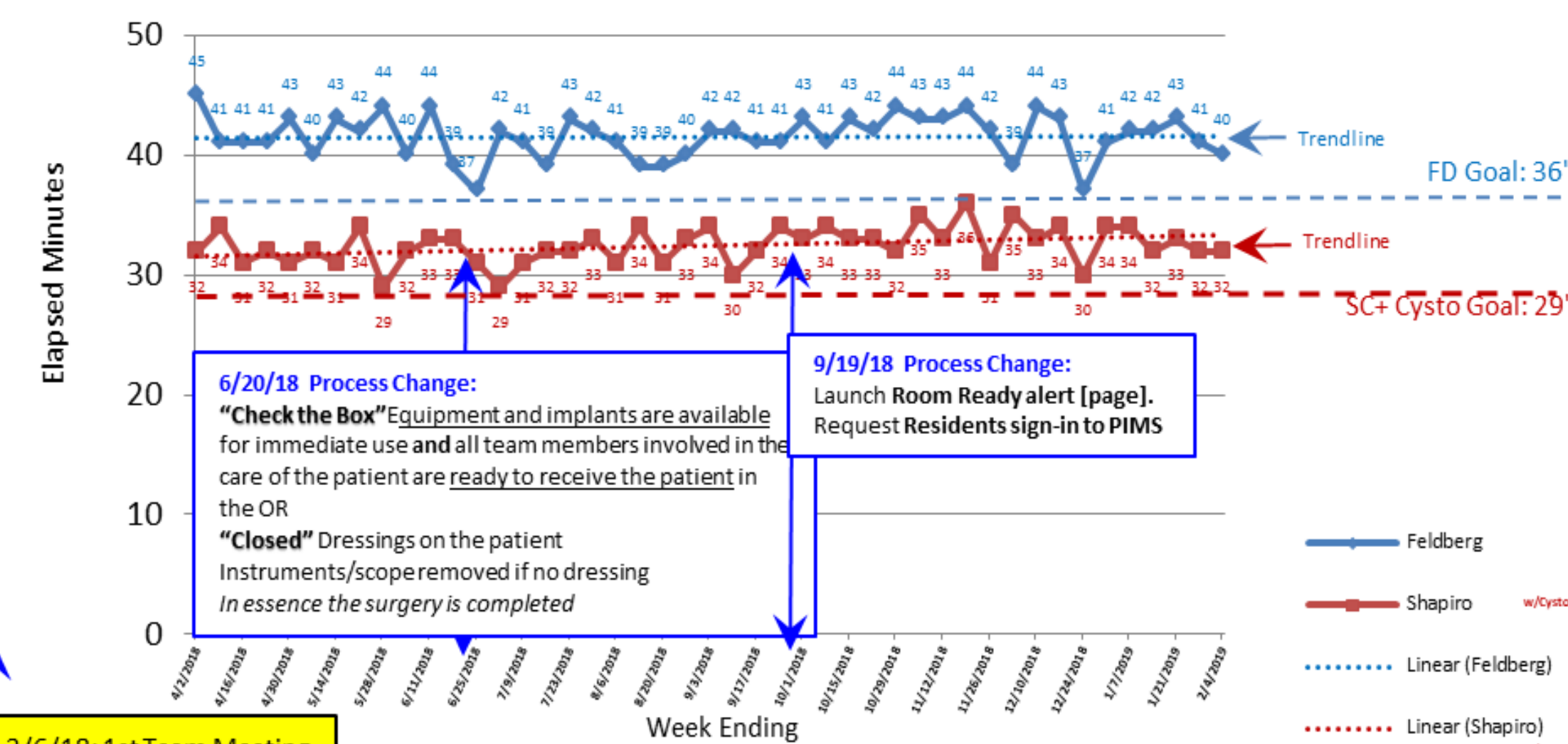### Dashboard Enhancements – Visual Cueing

The Dashboard Enhancements provide nursing and anesthesia leadership a bird's eye view of what is happening in each operating room. The color borders on the cases indicate different stages of getting ready in the room to receive the patient. This allows for deployment of additional support if running behind.
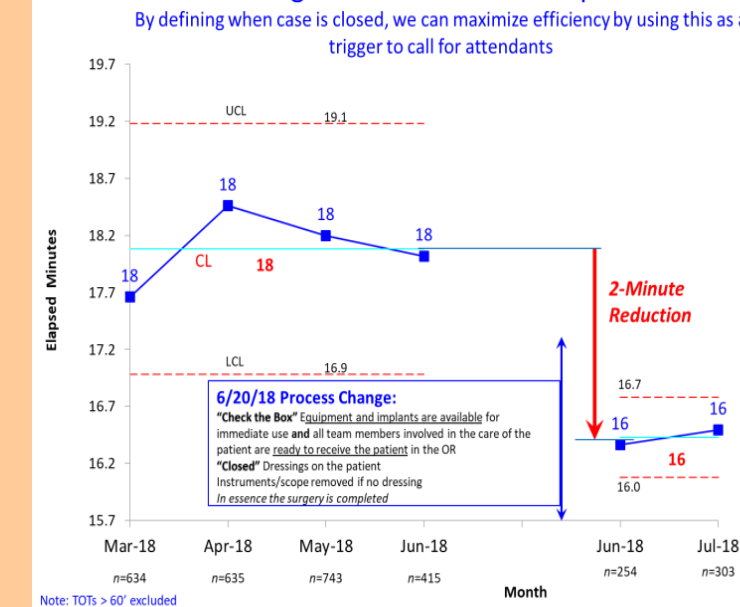
Room Set up started

Patient Ready to go back to OR – Page to Surgical and Anesthesia Staff

Room Ready - purple border

Results

Perioperative Throughput East Campus Team Performance Scorecard
Weekly Average TOTs   Updated 2/13/19

FD Goal: 36'

SC+ Cysto Goal: 29'

6/20/18 Process Change:
"Check the Box" Equipment and implants are available for immediate use and all team members involved in the care of the patient are ready to receive the patient in the OR
"Closed" Dressings on the patient Instruments/scope removed if no dressing
In essence the surgery is completed

9/19/18 Process Change:
Launch Room Ready alert [page].
Request Residents sign-in to PIMS

3/6/18: 1st Team Meeting
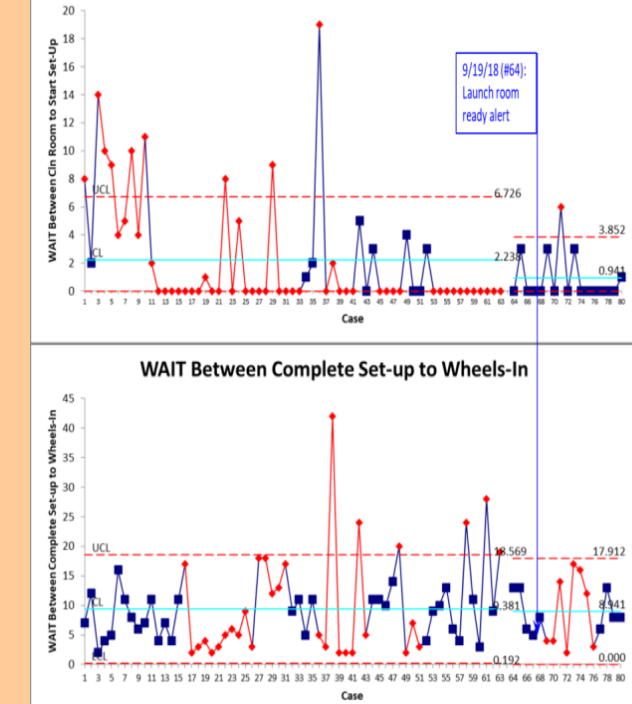
Average Mins Pt Out to Set Up Start

WAIT Between Cln Room to Start Set-Up

Turnover for Targeted Rooms - Next Steps					
Date	Suite	Turnover (mins)	Goal (mins)	Difference	Out by 5pm
2/11/2019	Shapiro 7	22	29	7	Yes
	Feldberg 8	37	36	-1	Yes
2/12/2019	Shapiro 6	34	29	-5	No
	Shapiro 8	23	29	6	Yes
2/13/2019	Feldberg 5	38	36	-2	Yes
	Shapiro 3	30	29	-1	Yes
2/14/2019	Feldberg 4	38	36	-2	Yes
	Feldberg 3	34	36	2	Yes
2/15/2019	Shapiro 4	28	29	1	Yes
	Feldberg 3	32	36	4	Yes

Lessons Learned

- Taking a fresh approach to turnover reduction by focusing on throughput rather than just the "cleaning of the room" turnover provided more opportunities for improving turnover times
- Ensure that all operating suites affected by changes we make, are fully informed of planned interventions prior to implementation
- Buy-in from all role groups is critical for adoption of culture changes in relation to parallel processing opportunities in perioperative throughput

Next Steps

- Evaluate turnover time in daily targeted room in comparison to turnover time goals
  - *Compare to average turnover times in non-targeted rooms*
- Develop/Implement additional dashboard enhancements for optimal efficiencies
- Calculate accurate surgical time averages for impacts to OR scheduling
- Explore barriers to throughput from contributory departments
  - Nuclear Medicine
  - Radiology
  - Labs
  - Pharmacy