



Background

Timely visits to the Pre-Admission Clinic (PAC) are necessary to institute pre-operative therapies and/or make appropriate consults for patients before cardiac surgery. This optimizes PAC functioning to better tackle issues such as:

- Prehabilitation
- Medication
- Smoking
- Exercise
- Anemia

This improves patient outcomes through enabling anemic patients to receive timely and effective iron therapies before their cardiac surgery. A narrative review has stated that iron therapy should be administered at least 3-5 weeks before cardiac surgery (Lim, Miles, & Litton, 2018). Increasing availability of PAC visits may increase number of anemic patients receiving iron therapy at least three weeks before their operation date.

Aim

Increase the average # of days between PAC visit and elective cardiac surgery operative date at RCH to at least 21 by June 2019.



Project Design & Strategy

In December, 2018, the sub-optimal timing of PAC appointments was discussed with PAC nurses and cardiac surgery coordinators. In Feb 2019, an extra 4 appointments were created to decrease the backlog of patient charts.

Process Measure: Average time between PAC visit and cardiac surgery date at least 4 weeks before surgery

Outcome Measure: Timely communication between cardiac surgical coordinator office, sending of chart, and optimal booking of patients

Balance Measure: Team workload/time & patient satisfaction

Team

Executive Sponsors: Steven Reynolds, Site Medical Coordinator
 Medical Sponsor: Shahzad Karim, Head Cardiac Surgery
 Physician and Project Lead: Dr. Navraj Kahlon
 PQI Advisor: Dr. John Hwang
 PQI Data Analyst: Janice Eng
 Research Support: Mariam Manna, SFU
 RCH PAC Team, RCH Cardiac Surgical Coordinator Team

Changes Made



A. Educate regarding prehabilitation



B. Empower PAC nurses to screen patients and prioritize appointments



C. Facilitate communication amongst PAC nurses, doctors, and Cardiac Services BC support

Results

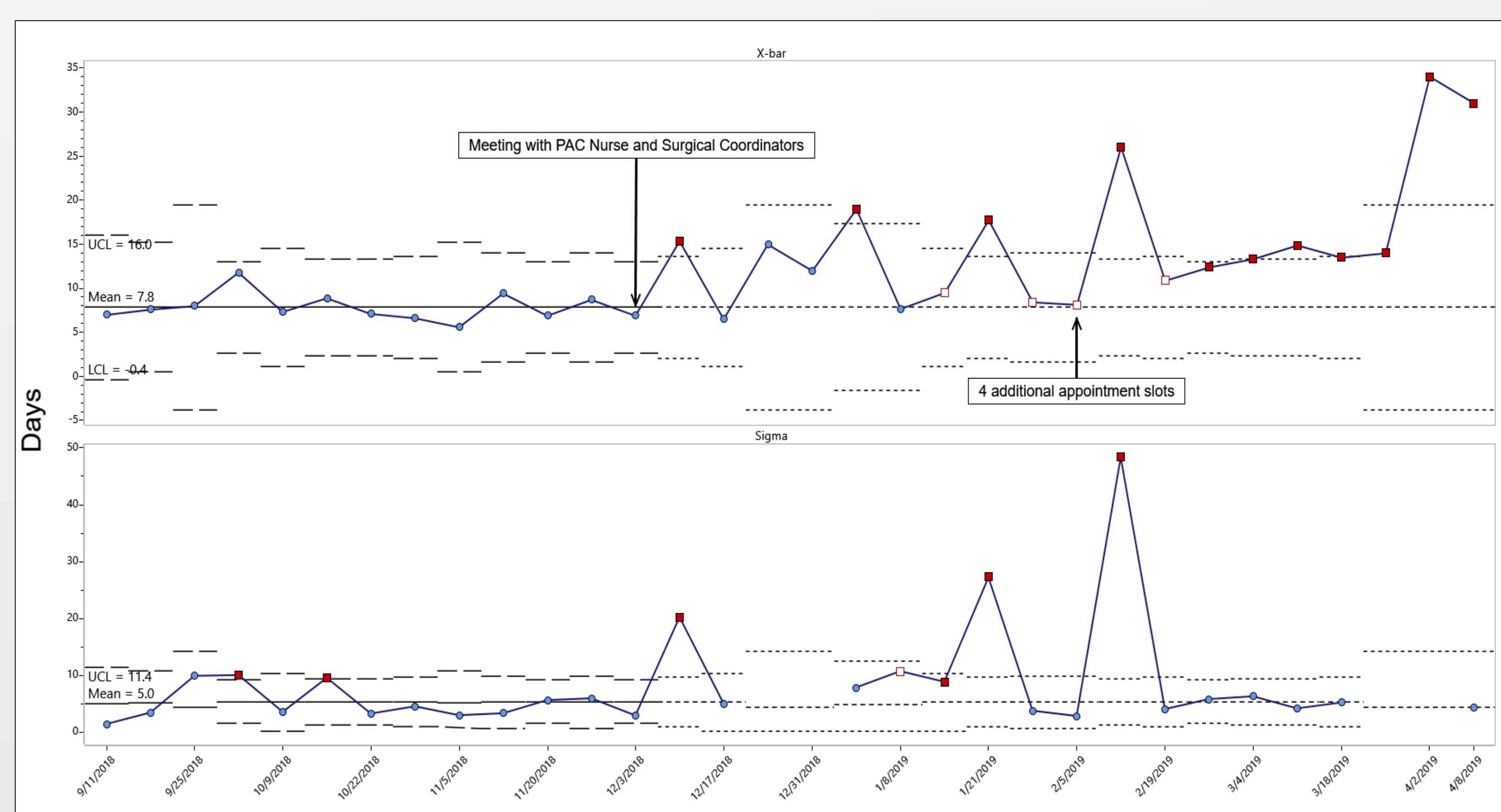


Figure 1: Interval between Visit and Operation.

In the fall of 2018, the average time between seeing an anesthesiologist and the date of operation was 7.8 days. By April, the average time had increased to 15.2 days.

Lessons Learned

With a well-timed pre-admission appointment, the ability of the PAC team and anesthesiologist to optimize patients becomes apparent. Over a 7 month period 26.6% of pre-operative elective cardiac patients were anemic. Only 7% of our anemic patients were treated with iron before their operation.

Month	# anemic pts untreated	# anemic pts treated with iv iron	# anemic pts treated with oral iron	total anemic pts	total non-anemic pts	total elective open heart pts
Sep 2018	4	1		5	18	23
Oct 2018	15	1	1	17	24	41
Nov 2018	12			12	21	33
Dec 2018	6		1	7	12	19
Jan 2019	3	1	1	5	28	33
Feb 2019	4		1	5	36	41
Mar 2019	3	1		4	13	17
Grand Total	47	4	4	55	152	207

References

Lim, J., Miles, L. and Litton, E. (2018). Intravenous Iron Therapy in Patients Undergoing Cardiovascular Surgery: A Narrative Review. Journal of Cardiothoracic and Vascular Anesthesia, 32(3), pp.1439-1451.

Contact Information

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