

Reduction in Pre-operative Testing for Low-Risk Surgery was Greater at St. Clare’s Hospital than at the Health Sciences Centre

Choosing Wisely Canada Recommendation

Don't perform standard baseline laboratory studies, electrocardiogram or chest X-ray for asymptomatic pre-operative patients undergoing low-risk, non-cardiac surgery. **modified wording for brevity*

Methods

1. In 2016, pre-op testing for low-risk surgeries was identified as an area of low-value care and the “Drop the Pre-op” campaign was adopted.
2. In January 2017, a medical directive was rolled out in two Eastern Health (EH) hospitals, St. Clare’s (SCM) and the Health Sciences Centre (HSC).

Results

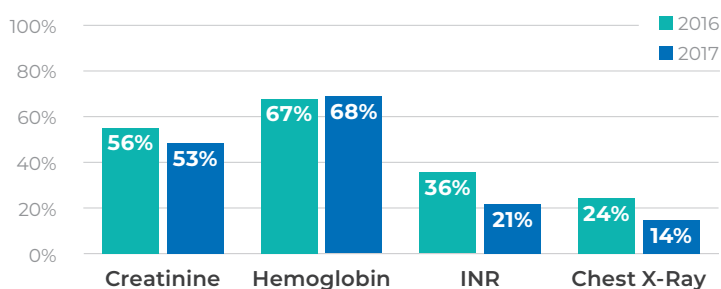


Fig. 1. Pre-operative Testing at Health Sciences Centre by Year

- Following the medical directive, there was little change in ordering of Hemoglobin (Hb) and Serum Creatinine at the HSC, but over 40% reductions in INR and Chest X-Ray.

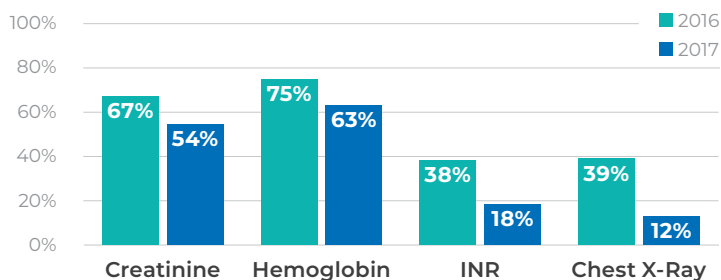


Fig. 2. Pre-operative Testing at St. Clare’s Mercy Hospital by Year

- At SCM, the reduction in Hb and Serum Creatinine was over 20%, of INR 56%, and of Chest X-Ray 72%. However, at baseline, the percentage of patients tested was higher at SCM than HSC.

Table 1. Volume of Low-Risk Surgeries and Pre-op Testing: HSC vs. SCM

	Low-Risk Procedures	Creatinine	Hemoglobin	INR	Chest X-Ray
Health Sciences Centre					
2016	2,961	1,669	1,994	1,058	705
2017 (% Change)	3,001 (-1.4%)	1,601 (-4.1%)	2,041 (+2.4%)	616 (-41.8%)	417 (-40.9%)
St. Clare’s					
2016	789	525	592	301	305
2017 (% Change)	739 (-4.1%)	396 (-24.6%)	465 (-21.5%)	134 (-55.5%)	86 (-71.8%)

- The HSC does four times the number of low-risk procedures compared to SCM.

Reported barriers to reducing pre-op testing from an Ontario study (Patey et al., 2012) include:

- ◊ unclear who is responsible for ordering the tests
- ◊ inability to cancel tests ordered by other doctors
- ◊ tests ordered based on who may be the attending anesthesiologist on the day of surgery
- ◊ surgeons ordering tests they thought anesthesiologist may need/want

Conclusions

1. The response to the medical directive to follow Choosing Wisely Canada guidelines regarding pre-operative testing before low-risk surgery was greater at SCM than at the HSC. This may reflect that barriers to implementation of the directive were greater and/or different at HSC compared to SCM.