



## EP7EO – Interprofessional Care

*EP7EOb: Provide one example, with supporting evidence, of an improved outcome associated with an interprofessional quality improvement activity led or co-led by a clinical nurse (exclusive of the CNO).*

- *Outcome data must be in the form of a graph and data table.*

### **Example EP7EOb: An Interprofessional Quality Improvement Project Co-Led by Clinical Nurse Ellen Guevara, Staff Nurse 1, to reduce the Cost of Routine Lab Tests (CBC-RP) in the Surgical Unit**

#### **Problem**

The Surgical unit has 46 inpatient beds and admission criteria for a patient population in nine surgical sub-specialties under the Department of Surgery. Clinical nurse Ellen Guevara, BSN RN, Staff Nurse 1, Surgical unit, raised a concern to the Unit Council (UC) related to physician practice and the ordering of routine laboratory specimens; specifically, Complete Blood Count (CBC) and Renal Profile (RP) for most surgical admissions despite normal laboratory values prior to patient admission.

The Efficiency Office reporting to the Medical and Clinical Affairs (MCA), disseminated data to all clinical departments in February 2021. The Surgical unit had the highest number of routine CBC and RP laboratory tests, with 1.93 tests/patient day. This raised questions related to the costs to the organization for processing unnecessary lab tests.

In February 2021, the cost of routine lab tests (CBC-RP) in the surgical unit was 794 SAR per patient day.

#### **Goal Statement**

To reduce the cost of routine (CBC-RP) lab tests ordered for patients on the Surgical unit at KFSHRC-J.

## Participants

**Table EP7EOb,1: Performance Improvement(PI) Project Team Members**

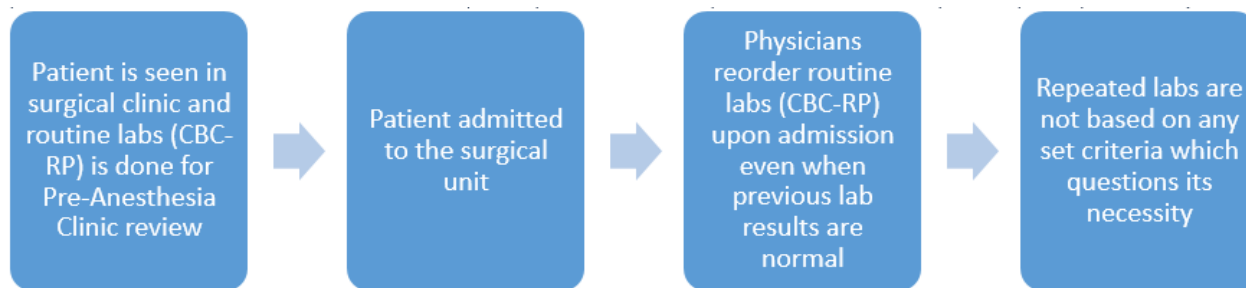
Name & Credentials	Job Title	Department
Diane Ross, MSN RN, CM	Head Nurse, <b>Team Leader</b>	Surgical
Ellen Guevara, BSN RN	Staff Nurse 1 (SN1), Clinical Nurse, <b>Co-Lead</b>	Surgical
Raneem Mukhtar, BSN RN	Assistant Head Nurse	Surgical
Ivyn Pili, BSN RN	SN1, Clinical Nurse	Surgical
Roziana Kama, BSN RN	SN1, Clinical Nurse	Surgical
Sundos Banjar, BSN RN	SN1, Clinical Nurse	Surgical
Jolly Mathew, Dip.N RN	SN1, Clinical Nurse	Surgical
Islam Junaid, M.D.	Chairman	Department of Surgery
Muhammad Tahir, M.D.	Assistant Consultant, Urology	Department of Surgery
Nouman Khan, M.D.	Assistant Consultant, Urology	Department of Surgery
Budor Aljabri	Statistical Analyst	Clinical Services
Jaffer Khairiy	Assistant Head Clinical Laboratory	Pathology and Laboratory Medicine
Gabrielle Hutchens, RN, CPHIMS, CPHQ, CSSGB	Nurse Quality Coordinator	Nursing Practice and Research

## Description of the Intervention

The UC chairperson, clinical nurse Mauren Koh, BSN RN, SN1, asked Ellen if she would co-lead a performance improvement team with Diane Ross, MSN RN, CM, Head Nurse, as the team leader. In March 2021, the team was formed and used the IACT methodology to guide their work. The IACT process is described in the Performance Improvement Plan (see OO2.3) by Quality Management Department as an approved process methodology to improve patient outcomes.

## Identifying the Gaps

The PI-IACT team mapped the current process for ordering routine lab orders as per Figure EP7EOb.1 below.



**Figure EP7EOb.1: Mapping Current Process of Routine Labs in Surgical Unit**

The following gaps in the process flow were identified:

- Not all physicians and nurses were aware of specific criteria to justify routine CBC, and RP blood draws upon admission.
- There was no current policy or departmental guideline to clarify a process for ordering routine blood specimens upon admission.
- There were no set criteria for ordering routine labs. Therefore, it was challenging for nurses to determine if lab tests were being ordered unnecessarily.
- Analysis of data from the Efficiency Office revealed that four sections under the Department of Surgery had the highest number of routine blood specimen work up, i.e., Urology, General Surgery, Orthopedics, and Otolaryngology services

PI-IACCT Team Assignments (March to May 2021)

Tasks were assigned to the members as per **Table EP7EOb-2** below.

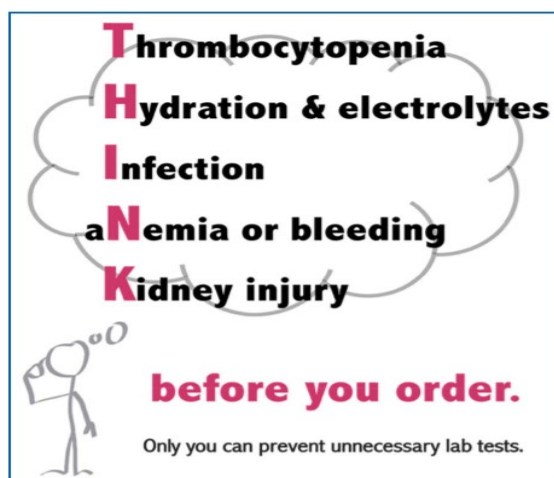
**Table EP7EOb.2: PI-IACCT Members Task Assignment**

Task Assigned	Responsible	Start Date	Completion Date
<b>Complete IACT Proposal form</b>	Ellen Guevara, <b>Co-lead</b>	March 15, 2021	April 01, 2021
<b>Complete a literature review on criteria for routine lab draws</b>	All members	March 25, 2021	April 15, 2021
<b>Complete Surgical unit Guidelines</b>	All members	April 15, 2021	April 30, 2021
<b>Complete THINK criteria unit posters and mini-information printouts for each unit PC</b>	Ellen Guevara, <b>Co-lead</b>	April 30, 2021	May 15, 2021
<b>Education on THINK criteria for all Surgical unit nurses</b>	Jolly Mathew Ivyn Pili	April 12, 2021 Team A	April 14, 2021 Team B

<b>Present PI-IAC T initiatives in the Surgical Departmental meeting</b>	Diane Ross, <b>Team Leader</b> Ellen Guevara, <b>Co-lead</b>	May 27, 2021	May 27, 2021
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Evidence-Based Literature Review (March to April 2021)

A PI-IAC T team conducted an evidence-based review between March 25 to April 15, 2021. The Choosing Wisely campaign was used to support the initiatives for the PI-IAC T project as it explained how unnecessary routine labs have a negative impact on patient outcomes due to repeated blood draws, unnecessary costs, and blood volume wastage (<https://www.choosingwisely.org/>). Further literature reviews led to the discovery of THINK criteria (Shinwa et al. 2018), which were added to the Surgical unit clinical guidelines as a requirement for routine blood specimen orders to assist healthcare providers in decision making for blood specimens if needed or not, see Figure EP7EOb.2 below.



**Figure EP7EOb.2: THINK Criteria**

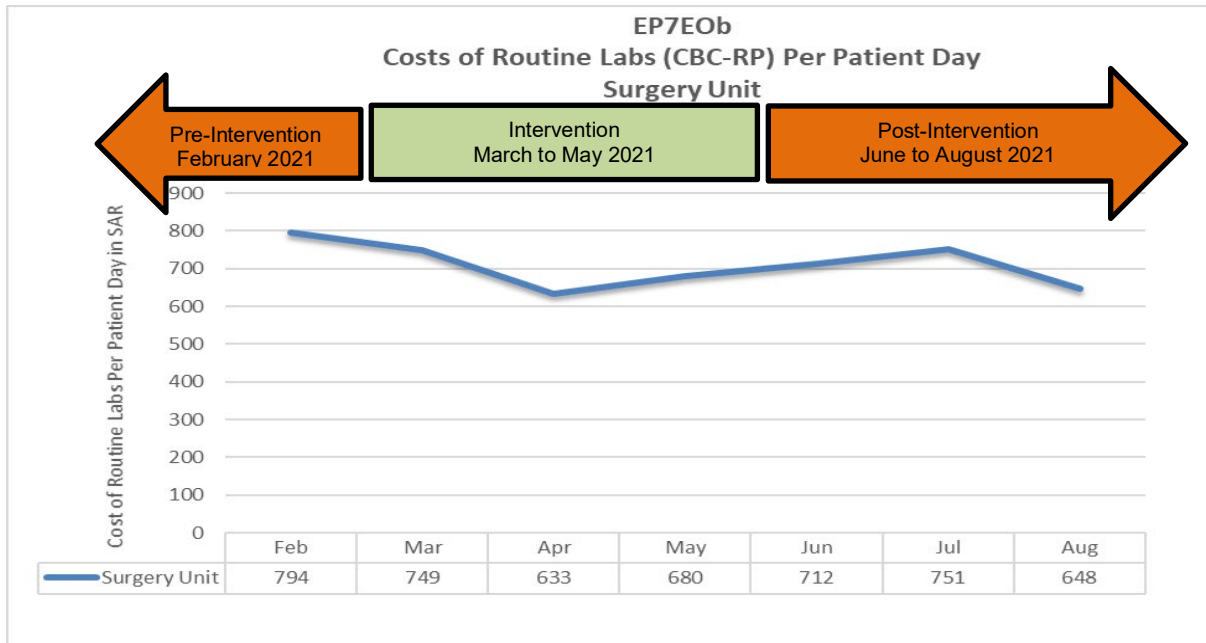
Implementing THINK Criteria (April to May 2021)

The THINK criteria were fully implemented in the Surgical unit on May 30, 2021, after the educational poster was placed in the nursing stations, and educational presentations were provided to all Surgical nursing and physician teams by May 27, 2021.

**All Interventions were completed from March to May 2021.**

**Outcome**

Clinical nurse Ellen co-lead the interprofessional quality improvement project to reduce unnecessary routine lab test (CBC-RP), resulting in a reduction in the Costs of Routine Labs (CBC-RP) per Patient Day on the Surgical unit, as seen in Graph EP7EOb.1 below.



**Graph EP7EOb.1: Costs of Routine Labs (CBC-RP) Per Patient Day in Surgery Unit**

### Reference

Shinwa, M., Bossert, A., Chen, I., Cushing, A., Dunn, A. S., Poeran, J., ... & Cho, H. J. (2019). "THINK" Before You Order: Multidisciplinary Initiative to Reduce Unnecessary Lab Testing. *The Journal for Healthcare Quality (JHQ)*, 41(3), 165-171.