مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre

Exemplary Professional Practice
Bridging Cultures through Shared Values in a Professional Environment of Partnership

EP1EO – Professional Practice Model

EP1EO: Two examples are required (one example must be from ambulatory care setting, if applicable).

Provide two examples, with supporting evidence, of an improved outcome associated with an evidence-based change made by clinical nurses in alignment with the organization's professional practice model (PPM).

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

Ambulatory Example EP1EOb: Improving Cycle Time in Oncology Treatment Area (OTA) Using Evidence-Based Practice (EBP) to Improve the Patient Experience

Problem

The PPM of Nursing Affairs includes Shared Governance and EBP as the golden threads woven throughout all aspects of nursing care delivery and is used to improve patient outcomes. The PPM, including the Unit Council (UC), is seen in Figure EP1EOb.1 below.
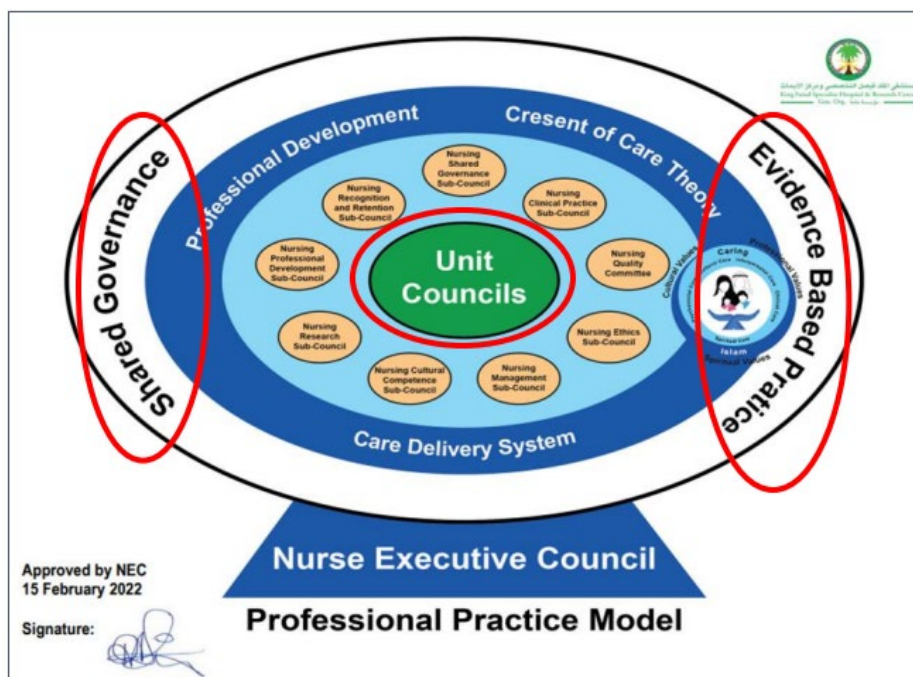

Figure EP1EOb.1: KFSHRC-J Nursing Affairs PPM, 2022

KFSHRC-J provides specialized comprehensive oncology treatment to patients, including in the OTA, an ambulatory service unit that accepts approximately 45 oncology patients per day for chemotherapy treatments. In June 2020, OTA clinical nurses Suriana Ahmed, BSN RN, Staff Nurse 1, and Edraline Guibao, BSN RN, Staff Nurse 1, both charge nurses, identified long waiting times for patients that affected the OTA workflow, with patients frequently complaining about long waiting times in the registration area for triage and assessment. In the second quarter of 2020, OTA patient satisfaction data results identified that patient satisfaction related to waiting time in the registration area was 50.9%.

Goal Statement:

Improve the mean score for patient experience using the question "Waiting time in registration area" in the OTA at KFSHRC-J.

Participants:

Table EP1EOb.1 below list the members of the interprofessional performance improvement project.

Table EP1EOb.1: OTA Performance Improvement Project Team

Name & Credentials	Job Title	Department
Ahmad Maghari, BSN RN	Head Nurse, **Team Leader**	OTA
Anitha Mathew, BSN RN	Nurse Clinician	OTA
Ayat Abdurabbo, BSN RN	Clinical Specialist	OTA
Dalia Kushari, BSN RN	Health Education Specialist	OTA
Edraline Guibao, BSN RN	Staff Nurse 1 (SN1), Clinical Nurse	OTA
Suriana Ahmed, BSN RN	SN1, Clinical Nurse	OTA
Deema Alarishi, BSN RN	SN1, Clinical Nurse	OTA
Taraji Rasheed, BSN RN	SN1, Clinical Nurse	OTA
Haneen Shaheen, BSN RN	SN1, Clinical Nurse	OTA
Alanoud Abualsaud, MSN RN	Program Director	Nursing General Services
Gabrielle Hutchens, MAppMgt (Nurs) RN, CPHIMS, CPHQ, CSSGB	Nursing Quality Improvement Coordinator	Nursing Practice and Research
Usman Binyam, M.D.	Consultant	Oncology Department
Reyad Dada, M.D.	Consultant	Oncology Department
Ibrahim Refaei, M.D.	Assistant Consultant	Oncology Department
Bayan Maimani	Representative	Ambulatory Care Services
Muhammad Salman Rafi	Pharmacist	Pharmacy
Samar Alhuntami	Lead Technical Assistant	Pathology and Laboratory Medicine

Description of the Intervention

Shared Governance

Suriana and Edraline raised concerns about the low patient experience scores to the OTA UC in July 2020. They identified factors that affect waiting times, including:

- Scheduling times, especially in the mornings
- Insufficient number of cubicles available to assess patients created long waiting times in hallways
- Delayed early morning treatments created a backlog and long waiting times for patients

The UC chairperson Essy Badongen, BSN RN, Staff Nurse 1, discussed concerns with the Head Nurse. They agreed on the need for a performance improvement (PI) project using the *Identify Analyse Change Transform* (IACT) methodology to improve patient satisfaction. The IACT process is described in the Performance Improvement Plan (see OO2.3) as an approved process methodology to improve patient outcomes.

Evidence-Based Practice

Suriana, Ayat Abdurabbo, BSN RN, and Anitha Mathew, BSN, RN, Nurse Clinician, reviewed the literature utilizing the Evidence-Based Nursing Practice Toolkit, adapted from The Johns Hopkins Nursing Evidence-Based Practice Model (2017) for KFSHRC-J, as described in the KFSHRC-J Nurse Research Strategy. They utilized the three-step process called PET: *practice question, evidence, and translation*, as outlined in the Evidence-Based Nursing Practice Toolkit.

They discovered that longer waiting times in ambulatory clinics were linked to decreased patient satisfaction and poorer patient perception of care provided. Longer wait times could cause impaired access to healthcare and a decrease in patients' willingness to return to the healthcare facility (Alarcon-Ruiz et al., 2019).

As part of utilizing the Evidence-Based Nursing Practice Toolkit, findings from the literature review identified that patients reported three main wait time components related to ambulatory oncology clinics: waiting for healthcare providers, waiting for tests, and waiting for treatment (Al Hroub et al., 2019).

The Head Nurse of OTA, Ahmad Maghari, BSN RN, initiated an IACT PI project to improve patient satisfaction with waiting time. In the third quarter of 2020, the team (see Table EP1EOb.1 above) identified four main areas requiring improvement in the process of waiting time in the OTA:

- Waiting time for a cubical to be available
- Waiting time for a patient to obtain lab test results
- Waiting time to review a patient's file by the consultant
- Waiting time for the physician to place the chemotherapy order in the electronic medication administration record

The IACT PI team utilized EBP literature to understand the process of redesigning scheduling based on patient demands and needs (Bridge et al, 2019). Bayan, Ambulatory Care Representative, extracted cycle time data from the data warehouse. *Cycle time is defined for this study as the time the front desk checked in the patient through the Integrated Clinical Information System until the patient was discharged.* Pre-intervention cycle time data averaged 553 minutes (nine hours and 21 minutes) of cycle time.

The IACT performance improvement project used Lean thinking concepts and tools such as value stream mapping (VSM) to analyze the OTA workflow, see Figure EP1EOb.2 below. The VSM presented a visualization of the pre-intervention of OTA workflow processes. The VSM was developed based on observations and testing from clinical nurses, beginning from when the patient arrived at the OTA for their scheduled appointment until the patient was discharged from the OTA.
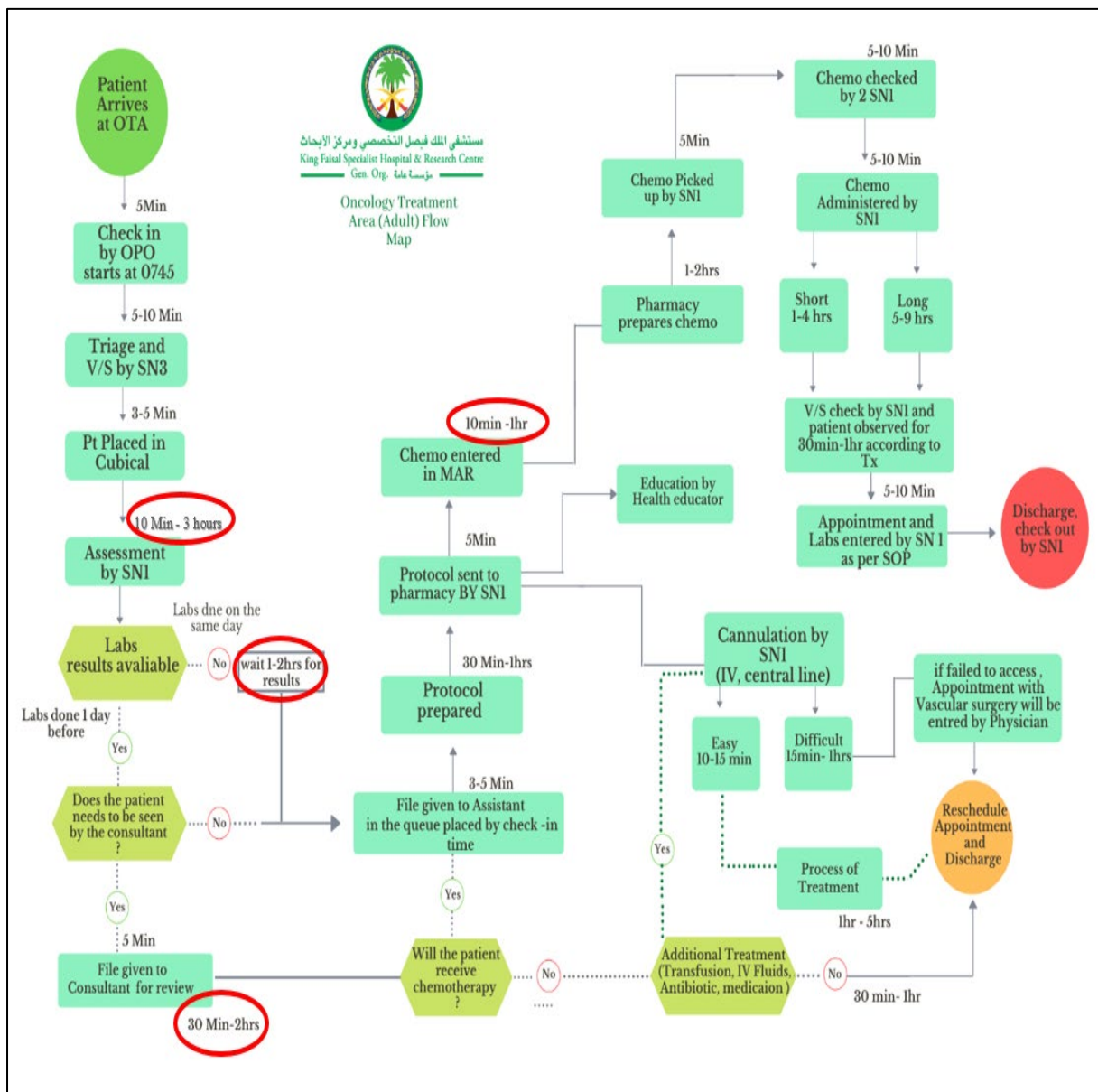

Figure EP1EOb.2: OTA Value Stream Mapping of Workflow Process

Chemotherapy Protocols Reviewed

Clinical Pharmacist, Muhammad Rafi, assisted the team in analyzing the chemotherapy protocols to determine the duration of each protocol. Patients were then scheduled for appointments based on the duration of the protocol, i.e., longer protocols were scheduled earlier in the morning, and patients with shorter protocols were scheduled later in the day, thereby maximizing bed utilization and reducing unnecessary waiting times for beds.

Advocating for Resources

The second initiative was related to the delay in patient assessment, medical record review, and entry of chemotherapy orders into the electronic medical record. This was resolved by advocating for resources, i.e., requesting the Medical and Clinical Affairs for an additional Oncologist to be available from the morning to assess and review patients and enter orders.

Prioritizing Labs

The third initiative was related to delayed laboratory results, which caused a flow-on effect in delays, causing physician reviews and chemotherapy orders to be entered late. This was resolved after collaborating with Samar Alhuntami, Lead Technical Assistant in the Laboratory, to prioritize all OTA patients' laboratory orders, enabling laboratory results to be ready within 30 minutes.

All interventions were implemented in the third quarter of 2020.

<u>Outcome</u>

The OTA (cycle in minutes) workflow became more efficient after all interventions, and patient experience scores improved. Improvement for the period of the second quarter of 2020 to the fourth quarter of 2021 is shown in Graph EPEOb.1 below. The OTA specific question measured was: "Waiting time in the registration area." There was no data available from the vendor for quarters two and three, 2021.
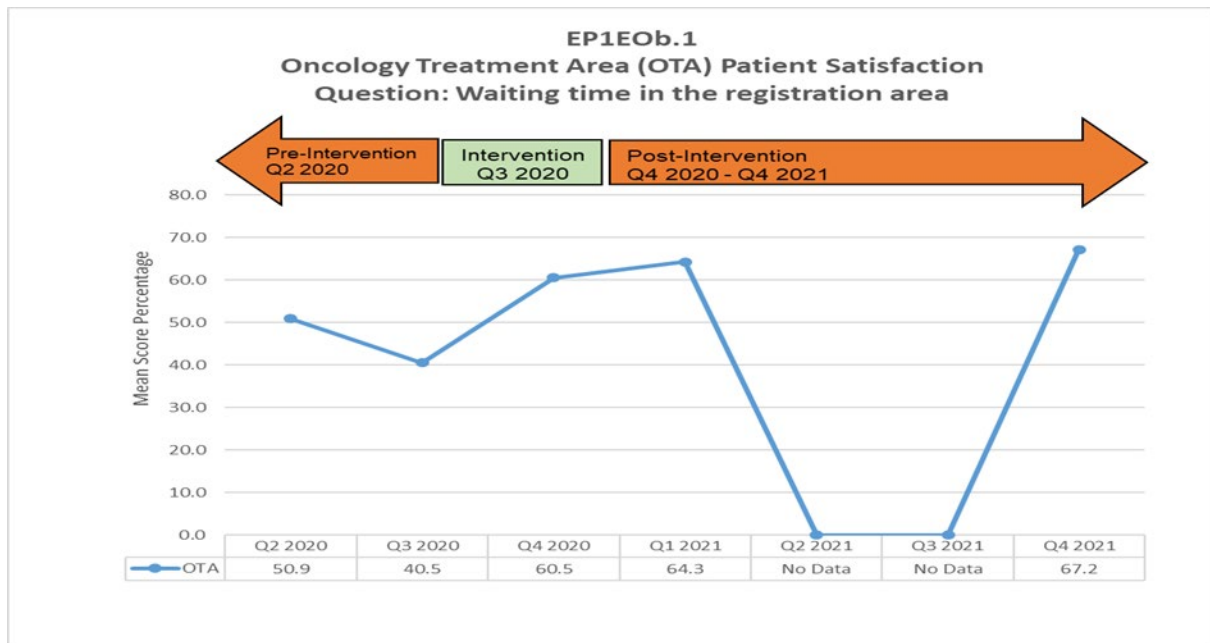
Graph EP1EOb.1: OTA Patient Satisfaction, Q2, 2020-Q4, 2021

References

Alarcon-Ruiz, C. A., Heredia, P., & Taype-Rondan, A. (2019). Association of waiting and consultation time with patient satisfaction: secondary-data analysis of a national survey in Peruvian ambulatory care facilities. *BMC health services research*, *19*(1), 1-9.https://doi.org/10.1186/s12913-019-4288-6

Al Hroub, A., Obaid, A., Yaseen, R., El-Aqoul, A., Zghool, N., Abu-Khudair, H., ... & Alloubani, A. (2019). Improving the workflow efficiency of an outpatient pain clinic at a specialized oncology center by implementing lean principles. *Asia-Pacific Journal of Oncology Nursing*, *6*(4), 381-388. https://doi.org/10.4103/apjon.apjon_21_19

Bridge, E., Conn, L. G., Dhanju, S., Singh, S., & Moody, L. (2019). The patient experience of ambulatory cancer treatment: a descriptive study. *Current Oncology*, *26*(4), 482-493: https://doi.org/10.3747/co.26.4191