



TL8 – Advocacy and Influence

TL8: Provide one example, with supporting evidence, where a clinical nurse(s) utilized data to advocate for the acquisition of a resource, in support of the care delivery system(s).

Example: Clinical Nurse, Vanessa Flores, BSN RN, Staff Nurse 1, Outpatient Department (OPD) Advocates for Point of Care Testing Resources in the Urology Clinic, OPD

KFSHRC-J aims to strengthen the patient and provider relationship by embedding a more patient-centered approach in care delivery. In October 2018, the Department of Surgery identified the need to open a Urology Clinic in the OPD to provide services for patients requiring urodynamic procedures. Nurses and physicians collaborated to prepare the requirements for the opening of the clinic, which included the acquisition of a urodynamic machine. Training on the use of the machine was completed for both nurses and physicians in preparation for the clinic opening. The Urology Clinic commenced operation on November 4, 2018. A registered nurse, i.e., Staff Nurse 1 (SN1), and Urology Physician are assigned to provide services within this clinic, which operates from 13:00 to 14:00 every Thursday, with five appointment slots available for patients, 20-25 slots in a month. The clinic provides care to eligible tertiary care patients, hospital employees, and dependents.

Use of Trended Data to Identify Problems with Turnaround Time for Urine Analysis of Patients for Urodynamic Studies

One of the services provided in the Urology Clinic is the urodynamic procedure. In reviewing the operational data in December 2020, it was observed that there was an increase in the cancellation of urodynamic procedures because of the unavailability of patients' urine analysis results.

Rationale for the Request

One of the requirements for urodynamic procedures is for the patient's urinalysis results to be available before the clinic appointment. The process was that a urine sample was collected in the OPD Laboratory and transported by the Patient Care Assistant to the Main Laboratory reception area. The specimen was logged in the laboratory database and then

sent to the Microbiology Section. The data showed that the turnaround time of urine analysis was between 4-8 hours. The problem was that the patient was arriving at the appointment without the urine analysis completed, resulting in the cancellation of the procedure, meaning that the patient's subsequent treatment plan would also be delayed.

Clinical Nurse Advocates for a Resource

Clinical nurse Vanessa shared this data with Rainavel Romano, BSN RN, Head Nurse, OPD, in the OPD team leader meeting on January 03, 2021. She suggested a review of the delay in cases and advocated for purchasing a urine Point of Care Testing (POCT) machine, which would decrease these delays. On January 18, 2021, Rainavel convened a meeting that involving Vanessa and the interdisciplinary team to review the turnaround time data and procedure cancellations. The team problem solved solutions to improve productivity, efficiency, and patient experience. **Evidence TL8.1 Minutes: Team Leader Meeting January 03, 2021, and Taskforce Meeting January 18, 2021**

Table TL8.1: List of Interdisciplinary Members

Name & Credentials	Job Title	Department
Vanessa Flores, BSN RN	SN1, Clinical Nurse	Surgical Clinic, OPD
Rainavel Romano, BSN RN	Head Nurse	OPD
Rehab Al-Assiri, BSN RN	Nurse Clinician	OPD
Islam Junaid, M.D.	Chairman/Consultant	Surgery Department
Nabeela Baz	Chairman	Pathology and Laboratory Medicine Department
Mahmoud Al- Akraa, M.D.	Section Head/Consultant	Surgery Department Urology Section Head
Elaf Alamoudi	Medical Technologist	Pathology and Laboratory Medicine Department
Jaffar Khiariy	Assistant Head	Pathology and Laboratory Medicine Department
Sarfinaz Hanbazaza	Quality Improvement Coordinator	Pathology and Laboratory Medicine Department
Gracean Sabino	Electronics Engineer	Clinical Engineering

The team reviewed the data on patient delays for the 20 patients seen in December 2020. As seen in Table TL8.2, the range of delay was 4-8 hours, with the average delay being 5.3 hours.

Table TL8.2: Urine Analysis Turnaround Time

Urine Analysis Turnaround Time (TAT)	Number of Patients
8 hours	2
6 hours	7
5.5 hours	1
5 hours	2
4.5 hours	1
4 hours	7

Table TL8.3 shows the number of patients who had their urology procedure canceled due to a delay in their urine analysis results from the laboratory.

Table TL8.3: Number of Patient Cancellations

Urine Analysis Turnaround Time	Number of Patients	Percentage
5-8 hours (Canceled Cases)	12	60%
4.5 hours and below (Procedure Completed)	8	40%

Vanessa and the team reviewed the data and agreed that this was not an efficient use of time or resources. It was not a satisfactory experience for patients or the interdisciplinary team. A range of interventions, including the use of the POCT for urinalysis, were proposed as summarized in Table TL8.4 below.

Table TL8.4: Summary of Interventions

Solutions	Actions	Date completed
Baseline data for turnaround time (TAT) of urine analysis for patients booked for a urodynamic procedure	<ul style="list-style-type: none"> Data gathering was conducted for one month on patients booked for urodynamic procedures Twenty patients were identified to determine turnaround time of urine analysis prior to urodynamic procedure 	December 2020
Review baseline data with various stakeholders	<ul style="list-style-type: none"> Meeting by interdisciplinary team, data reviewed and solutions discussed 	January 18, 2021
Installation of urine POCT machine in Surgical Clinic	<ul style="list-style-type: none"> Memo sent to Chairman of Pathology and Laboratory Medicine requesting a POCT machine in procedure room 	February 24, 2021 Evidence TL8.2 Memo Requesting POCT Machine;

	<ul style="list-style-type: none"> • Procurement and installation of validated POCT urine analysis device by • Connectivity-integration between Laboratory Information System (LIS) and device 	<p>Equipment Transfer Authorization</p> <p>April 2021</p> <p>May 2021</p>
Training of end-users (Staff Nurses)	<ul style="list-style-type: none"> • Educational session and training conducted on usage of device by Rehab Al-Assiri, Nurse Clinician, and Elaf Alamoudi, POCT Coordinator • Competency check-off completed for 14 nurses 	<p>April 2021</p> <p>Evidence TL8.3 Certification Checklist</p>
Sample testing	<ul style="list-style-type: none"> • Sample testing and transmission test conducted • Competency check off completed for 14 nurses 	<p>June 8, 2021</p>
Workflow process changes	<ul style="list-style-type: none"> • Finalized clinic workflow and shared with all stakeholders 	<p>June 10, 2021</p> <p>Evidence TL8.4 Workflow Process</p>
Utilization of urine POCT machine	<ul style="list-style-type: none"> • Urine POCT done for all patients prior to their urodynamic procedure 	<p>June 17, 2021</p>

Implementation

The POCT urinalysis machine, i.e., Urisys, was purchased in April 2021. On completion of end-user training the nurses gave feedback to Elaf Alamoudi, POCT Coordinator. The nurses found it easy to use, and the duration of waiting for the results took less than one minute, with the whole process of urine POCT being approximately five minutes. Overall, the nurses were happy with the outcome.

The urine POCT was fully implemented on June 17, 2021. All patients undergoing a urodynamic procedure undergo urine POCT, and the turnaround time greatly improved with this process change. Patients no longer wait for 4-8 hours for their urine analysis result, and no procedures are canceled. Feedback indicates that patients are more satisfied, e.g., patient feedback from Patient M. expressed great satisfaction with the new service and appreciated the team's hard work to improve the service.

Table TL8.5 below demonstrates the improved outcome in procedure cancellation and TAT for urine analysis.

Table TL8.5: Improved Outcome, July 15, 2021

Urine Analysis Turnaround Time	Number of Patients	Percentage
5-8 hours (Canceled Cases)	0	0%
4.5 hours and below (Procedure Completed)	8	100%