

Facing the Unknown with Data: Strategies to Maximize Care Capacity for Resurgence of COVID-19

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Introduction

Hematology/Oncology Respiratory Evaluation Emergency Extension Site (Hem/Onc REEES) was established in March 2020 with the following goals:

- To care for hematology and oncology patients with respiratory or other symptoms associated with COVID-19.
- To minimize delay in oncology care delivery due to COVID-19.
- To minimize unnecessary patient visits to the emergency department.

Problem

As we prepared for the winter of 2020-2021, the prevalence of COVID-19 was expected to increase. With expected patient influx at Hem/Onc REEES, there was an urgent need to understand our practice patterns and identify improvement strategies to maximize our care capacity.

Methodology

This project was conducted in the fall of 2020. We reviewed the unit log from April 2020. It represented a period of high clinical acuity along with the first wave of COVID-19 in our state.

Nursing interventions were identified by reviewing the billing data. Furthermore, we analyzed appointment scheduling and duration on selected days.

Based on the April 2020 data, we implemented Interventions likely to promote high-quality, efficient care.

April 2020 Data

Total Clinic Encounters = 114
 Average Visit Duration = 2hrs 32 min
 Common Nursing Interventions:

- Nasopharyngeal specimen collection (n=100)
- Lab evaluation (n=52)
- Intravenous fluid administration (n=16)
- Blood products administration (n=2)

Many visits were added on the same day for urgent patient evaluation.

Structure

- Revised orientation plans for deployed nurses with focus on commonly given interventions
- Planned to book 2-3 hours for patients requiring urgent symptom evaluations
- Lead-RN to oversee daily unit operation and patient flow
- A weekly “chemotherapy day” with chemotherapy competent nurses on site
- Weekly huddle between clinic nurses and leadership

Process

- Nursing processes as per hospital policy
- Fidelity to REEES unit SOPs
- Communication and teamwork

Outcome

- Maximize care capacity
- Minimize care delay
- Evidence-based care
- Minimize nursing burnout

Winter 2020-2021: Unanticipated Challenges

- Many other departments continued to operate for patient care.
- A smaller space available for the Hem/Onc REEES clinic.
 - A fewer number of nursing staff who were deployed from other departments.
 - No dedicated nursing assistants or administrative support on site.
 - Patients with complex medical histories including those who had stem cell transplant & chimeric antigen receptor T-cell therapy and those on clinical trials.

Based on the Donabedian Framework

Results – January 2021

- Total Clinic Encounters = 95
 Nursing Interventions Provided:
- Nasopharyngeal specimen collection (n=76)*
 - Lab evaluation (n=63)
 - Chemotherapy/immunotherapy administration (n=16)
 - Intravenous fluid administration (n=10)
 - Injections including Leuprolide Acetate, Octreotide, Cyanocobalamin, & Pegfilgrastim (n=9)
 - Blood products administration (n=9)
 - tPA instillation (n=3)
 - Non-chemotherapy IV therapeutics including Belatacept, Ferumoxytol, & Eculizumab (n=3)
 - PK/PD draw for clinical trial (n=1)

* Decrease in the specimen collection at Hem/Onc REEES was a result of more patients using BIDMC drive thru testing sites.

Conclusion

We were successful at expanding the scope of Hem/Onc REEES. The clinic utilization data showed the provision of more complex, oncology-specific care in January 2021 despite the smaller physical space and a smaller number of nursing staff.