

ASCO's Quality Training Program

Project Title: Reducing Emergency Room Visits in Patients Receiving IV Chemotherapy Using Care Coordination.

Presenter's Name:

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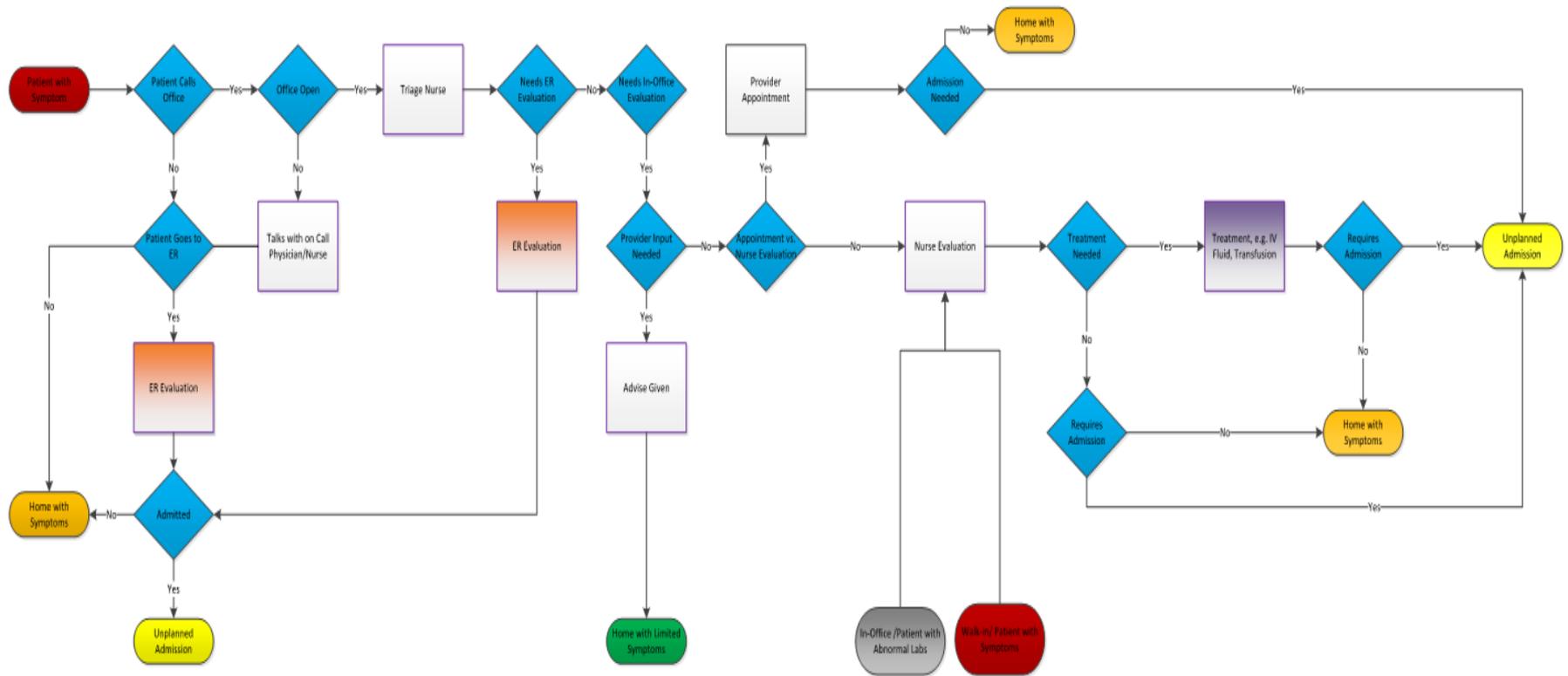
Institution: Tennessee Oncology

Date: January 26th, 2017

Problem Statement

From January to June 2016, 96 patients receiving IV chemotherapy at the Memorial office had an Emergency Room visit. This results in emotional, psychosocial, and physical burden for patients and is a preventable cost for patients and the healthcare system.

Process Map



Institutional Overview

- Tennessee Oncology is one of the largest physician owned practices in the country with a total of 32 locations including 6 in the East TN Region and 26 in the Middle Tennessee Region.
- Tennessee Oncology nationally recognized for improving patient outcome through clinical trials, research, and innovative treatment.
- QOPI Certified (2014), OCM Participant (2016), Meaningful Use Participant, PQRS Participant.
- Tennessee Oncology-Memorial Plaza is the Largest Clinic within Tennessee Oncology with an average of 2,700 patients per month.
 - 58% of the patients are Oncology
 - 42% of the patients are Hematology
- Location: Chattanooga, TN
- Five Oncologist/Hematologist & 3 Nurse Practitioners.

Team Members

Team member, role/discipline:

Edward Arrowsmith, MD-Team Leader

Natalie Dickson, MD-Project Sponsor

Jeff Patton, MD- Project Sponsor

Marq Anz, MD- Core Team Member

Gina Geren-Facilitator

Lenes Suits- Core Team Member

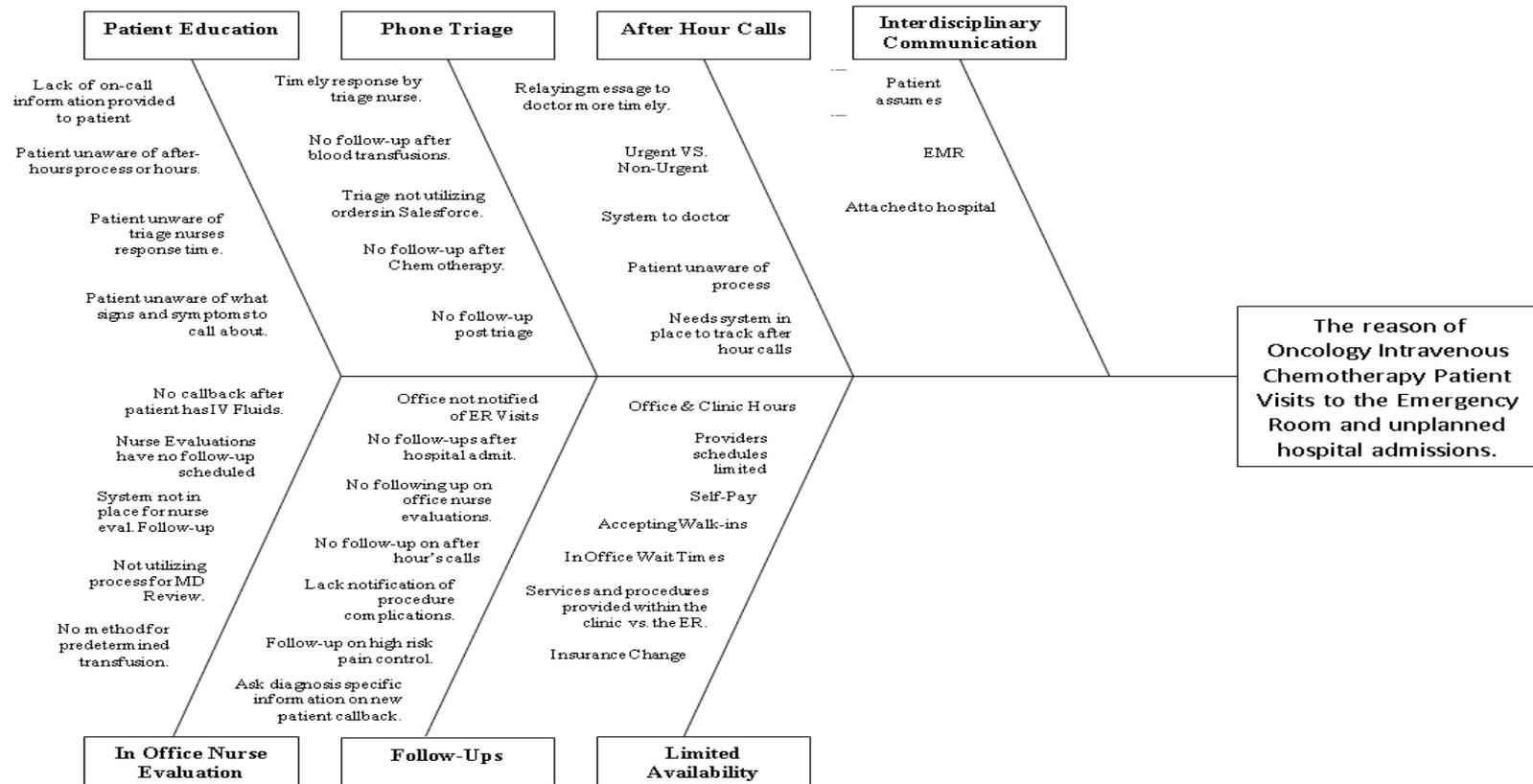
Traci Easterly-Team Member

Leslie Vasta-Team Member

Aaron Lyss- Team Member

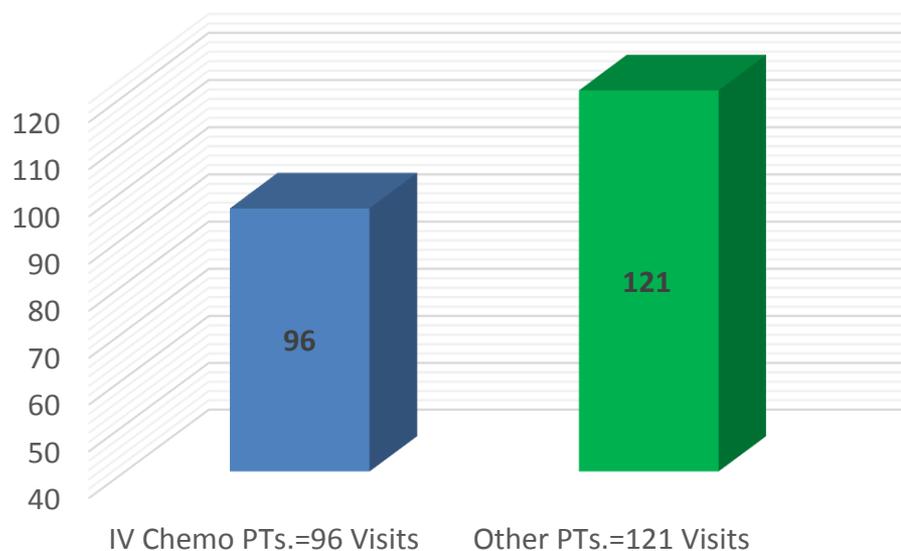
Vedner Guerrier- QTP Coach

Cause & Effect Diagram

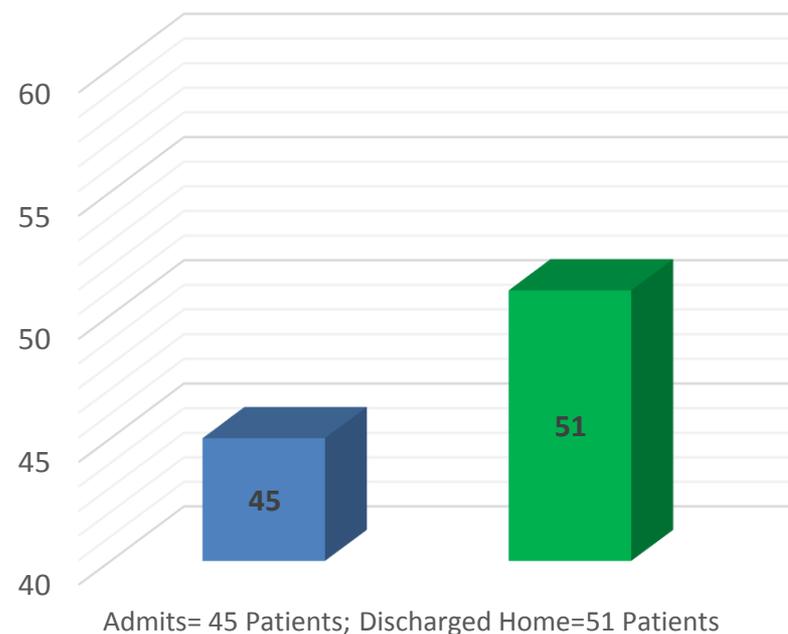


Diagnostic Data

Emergency Room Visits
January - June 2016
Total 217

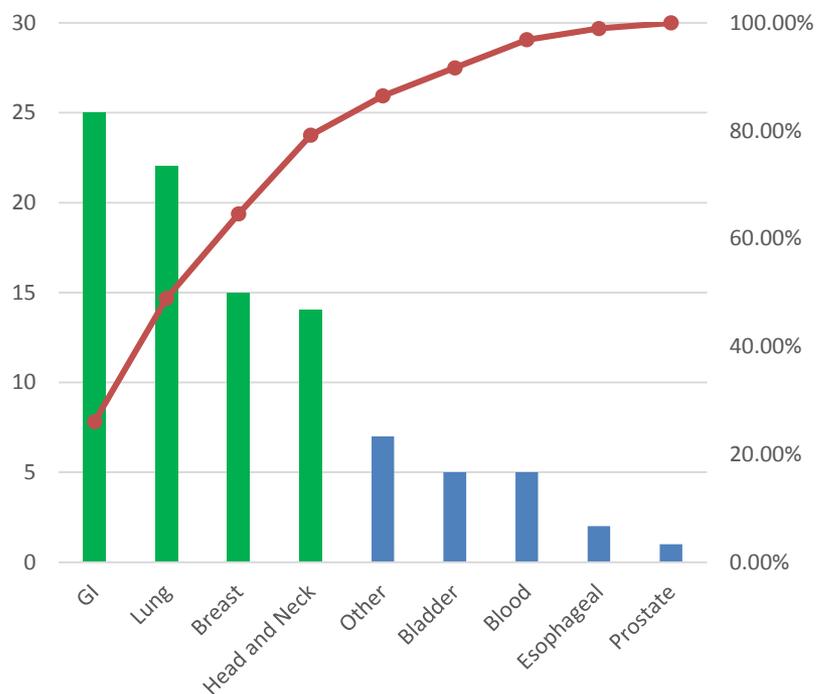


Admit from ER VS.
Discharged from ER

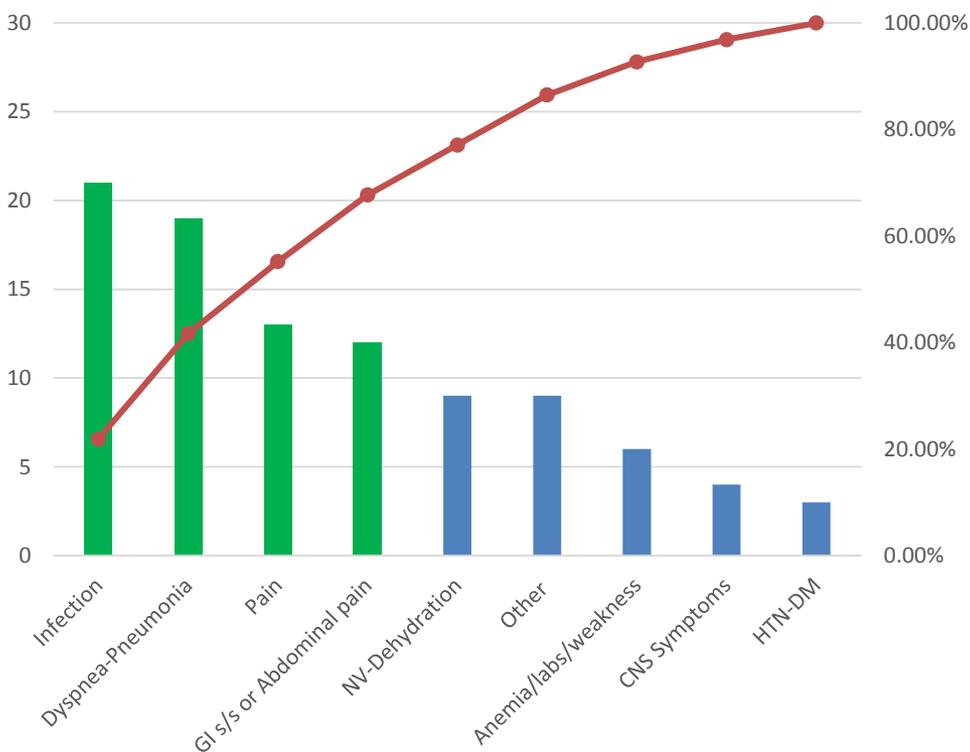


Diagnostic Data

Disease Type of ER Visits



ER Visits By Reason



Aim Statement

We will reduce the number of Emergency Room visits at the Memorial office by 30% by November 2016.

Measures

- **Measure:** Monitor documentation of Emergency Room visits to address Intravenous Chemotherapy related visits
- **Patient population:** All Intravenous Chemotherapy patients with Emergency Room visit.
 - ❖ **Exclusions:** Non-chemotherapy related visits.
- **Calculation methodology:** Total Emergency Visits of Intravenous Chemotherapy patients per cancer Diagnosis.
- **Data source:**
 - Electronic medical record from local hospitals.
 - Clarus on-call service app.
 - Notifications from the hospital throughout the day.
- **Data collection frequency:** Daily/Monthly
- **Data quality(any limitations):** Availability on obtaining Patient Data from the local hospitals.

Baseline Data

Baseline Data (January -June 2016)

- Total number of Memorial clinic patients that visited the Emergency room.
- How many of those patients were Intravenous Chemotherapy patients within the last 3 months?
 - ❖ How many were admitted?
 - ❖ What type of cancer?
 - ❖ What was the reason for the Emergency Room visit?

Prioritized List of Changes (Priority/Pay –Off Matrix)

High Impact	<ul style="list-style-type: none"> • Magnet-patient education • In clinic nurse evaluation system • Follow up Emergency Room visits and hospital admission 	<ul style="list-style-type: none"> • Salesforce-phone triage management system • On-call system for after hours
	<ul style="list-style-type: none"> • New patient nurse education 	<ul style="list-style-type: none"> • System in place to monitor data of number of patients going to ER.
Low Impact		
	Easy	Difficult

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
7/1/16	Added new software to manage phone triage.	Great organization. Need process within to close loop.	Enhanced software to organize follow up system for phone triage.
7/1/16	ER visit and admission tracking process within clinic.	Can retrieve data. Increases workload on staff.	Working with EMR group to establish system to monitor these patients.
8/1/16	Initiate in clinic nurse evaluations follow up.	Easy to do. Not difficult for staff.	Monitor amount of in office evaluations.

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
8/1/16	Increase education of new patients for emergency services.	Easy to initiate. No increase burden on staff.	Monitor data.
8/1/16	Developed visual queue – magnet for patients at home.	Pt seem to like it. Easy for staff to use. Cost effective.	Monitor data.
8/1/16	Initiate Clarus on-call service.	Working well. Need system for closing loop.	Work on flow for follow up and tracking of patients.

Materials Developed

Tennessee Oncology

After hours instructional guide for Clarus.

We know that caring for you and your loved one does not stop when the clinic closes. We are committed to compassionate care no matter the time of day or night. In order to better serve you in the hours after your clinic closes, we have adopted a system to ensure you get the care you need, when you need it.

What Should I Expect?

- **Call your clinic phone number**-you will not get an agent. Our automated system will pick up.
Clinic Number: _____
- **Follow a brief series of prompts** to provide the following:
 - Urgent=Receive immediate callback
 - Non-Urgent=Receive callback following business day
 - Phone number we may reach you
 - Patients name
 - Patients Doctor
 - Patients Date of Birth
 - Your message including your Pharmacy Phone Number
- **On-call clinical provider**-listens to your message and knows exactly what your call is concerning, so there is no need to repeat yourself.
- **Receive callback**-The first person you speak with will be a clinical provider when they return your call.

Urgent=Immediate callback

Shortness of breath
Chest Pain
Fever over 100.5
Uncontrolled nausea and vomiting
Bleeding
Uncontrolled Pain
Unusual Swelling
Oxygen level below 88

Non-Urgent=Callback following business day

Appointment changes
Refills
Non-Urgent doctor questions
Forms and medical records
Authorizations



Implementation

Nurse Evaluation

- Educating and encouraging patients to contact office for symptom management.
- Reference cost analysis below.

Salesforce

- Categorizes patient calls by priority.
- Developed process for nurse follow-up symptom management calls.

Follow-up

Implemented the following to close the loop on symptom management.

- Inpatient Evaluations
- Call in symptom management.
- Unexpected ER visits and unplanned admissions.

Cost Analysis

In Clinic: Average Cost

- Nurse Visit with hydration and antiemetic- **\$398.44**
- Provider Visit with hydration and antiemetic- **\$784.15**

ER visit: Average Cost

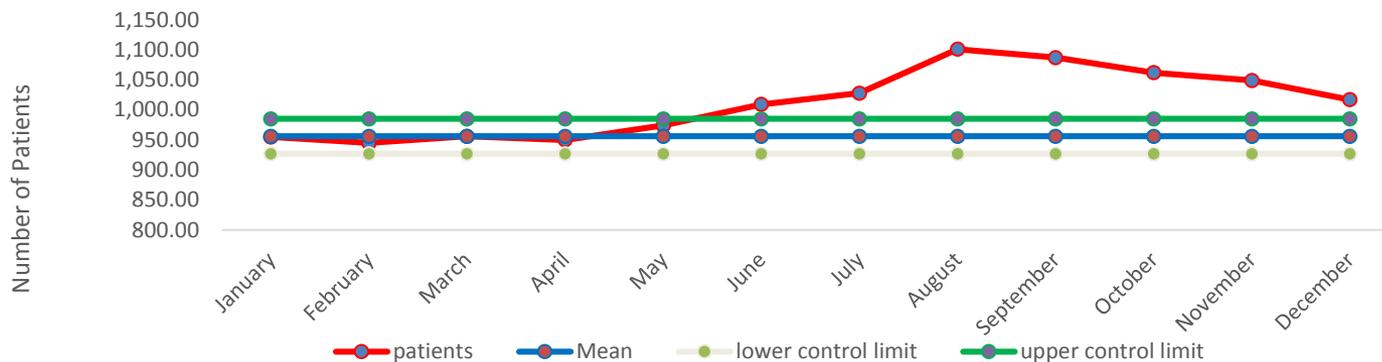
- ER visit with treatment for Dehydration- **\$4399.00**
- Admission from ER with LOS- 3 days or less- **\$11,917.00**
(For various reasons of infection, dehydration- n/v, pain)

Memorial – Nurse Evaluation & Hydration

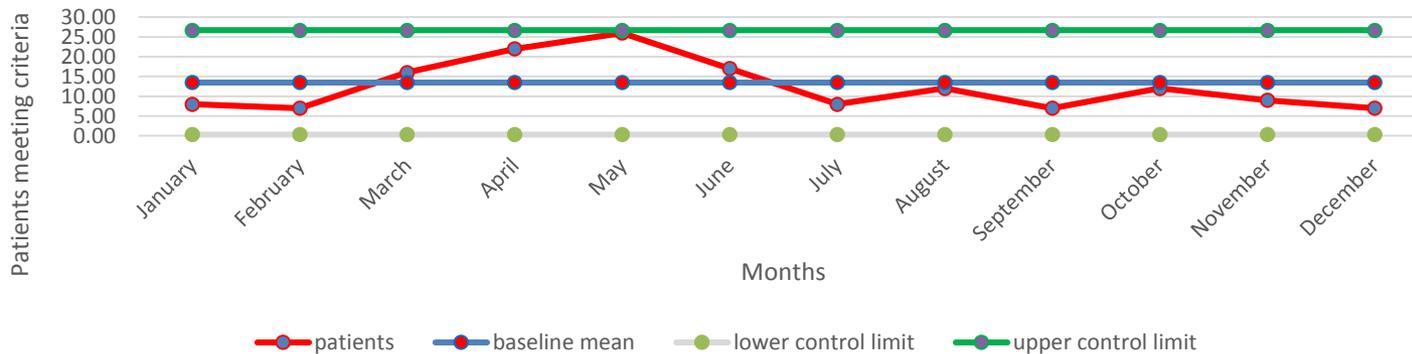


Change Data

Total IV Chemo Patients Monthly



ER Visits per Month- 2016



Conclusions

- A pilot study of educating cancer patients about symptom management and coordinating care and ensuring follow up for symptomatic can reduce ER visits
- We plan to extend this program to all Tennessee Oncology clinics

Next Steps/Plan for Sustainability

- Development of a monthly conference to review ER visits, admissions, ICU utilization, and process metrics
- Extension to all Tennessee Oncology clinics
- Introduction of Co-located Palliative Care
- Development of predictive models to predict high risk patients with multidisciplinary intervention

Reduction in Emergency Room Visits of Chemotherapy patients

AIM: We will reduce the number of Emergency Room visits of patients receiving IV chemotherapy at the Memorial office by 30% by November 2016.

INTERVENTION:

- Began use of systematic phone triage system to prioritize call according to risk level called Sales Force.
- Initiated after hours call process with access to electronic Record system and real time message access called Clarus.
- Implemented new in office processes to 'CLOSE THE LOOP' in patient evaluations by creating follow up guidelines for symptomatic phone triage and in clinic patient evaluations.
- Implemented a default follow up process for all emergency room visits and hospital admits of 48 hours.
- Increased patient awareness of in office triage during and after hours by increasing new patient education by staff, developed a magnetic reminder to call the office for non emergent and emergency situations, and instructions for use of after hour call system.

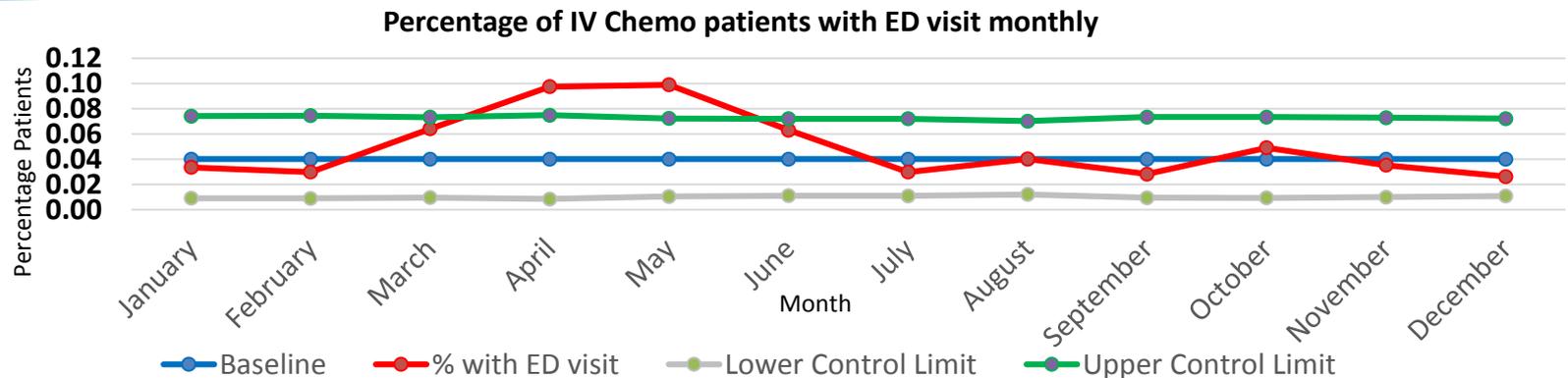
RESULTS: The Memorial Office saw a 30% reduction in ER visits.

TEAM

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 Gina Geren-Facilitator
 Lenex Suits- Core Team Member
 Traci Easterly-Team Member
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 Aaron Lyss- Team Member
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PROJECT SPONSORS:

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NEXT STEPS: Work with Process development to utilize Electronic Records system to develop data retrieval process for data retrieval. Expand use of new processes to all clinics in East TN and progress to all TN Oncology clinics.