

ASCO's Quality Training Program

**Project Title: Patient Centered Cancer Care
Assess & Reduce Preventable Emergency
Department Visits**

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Kenneth Bishop, MD, PhD
Tara Szymanski, CTR**

**Institution: The Comprehensive Cancer Center
A Program of Rhode Island Hospital**

Date: March 6, 2014

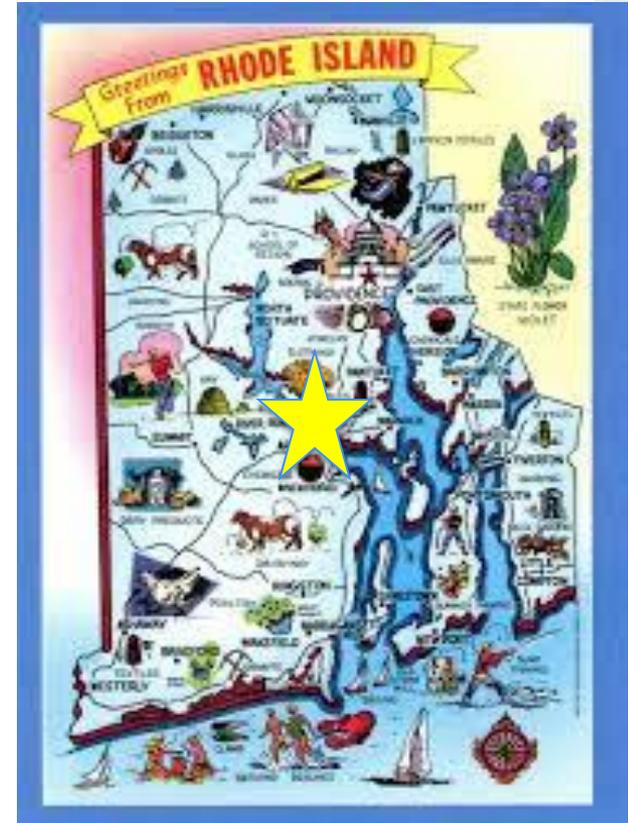
Institutional Overview

Rhode Island Hospital, Providence, RI Comprehensive Cancer Center

- **1,550** new patients annually (RIH)
- 12 Hematologists / Oncologists

Rhode Island Hospital Emergency Department

- State's largest tertiary provider and only Level 1 trauma center for south eastern New England
- High volume of emergency room visits; serving nearly 150,000 patients last year



Team Members

Project Sponsors: Nicholas Dominick, Senior VP,
Cancer Services
Susan Korber, RN, Administrative
Director, Cancer Center

Team Leader: Mary Anne Fenton, MD
Medical Oncologist

Core Members: Megan Begnoche, RN, Nursing
Quality & Safety Manager
Tara Szymanski, CTR, Quality &
Accreditations (Facilitator)

Team Members:

- Laurie Browning, RN, Director, ED
- Ariel Birnbaum, MD, Medical Oncologist,
Comprehensive Cancer Center
- Kenneth Bishop, MD, Hematology/Oncology
Fellow, Comprehensive Cancer Center
- Patricia Karwan, NP, Comprehensive Cancer
Center
- Ryan Parker, RN, Inpatient Oncology Unit
- Eileen Silveira, RN, Triage Nurse, Comprehensive
Cancer Center
- Robin Turnbull, RN, Patient Navigator,
Comprehensive Cancer Center



QTP Improvement Coach: Laurie Kaufman, MSN, RN



Problem Statement

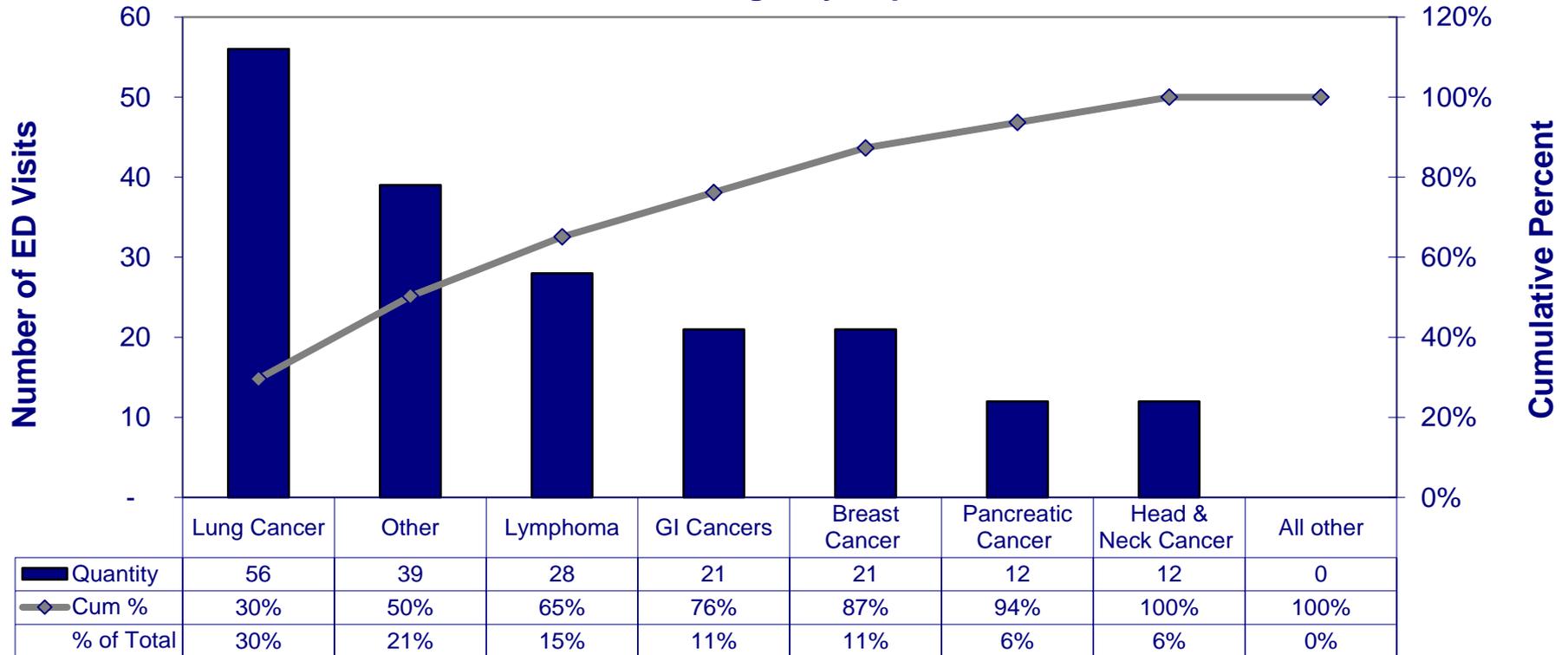
During calendar year 2013, 224 Rhode Island Hospital (RIH) adult cancer patients presented to the RIH Emergency Department (ED).

Retrospective review indicates up to 50% of these ED visits were avoidable.

In our resource restricted environment we must focus resources to avoid costly ED visits for “non-emergent” care.

Diagnostic Data

Pareto Chart
Common Cancer Center Diagnoses In
The RIH Emergency Department



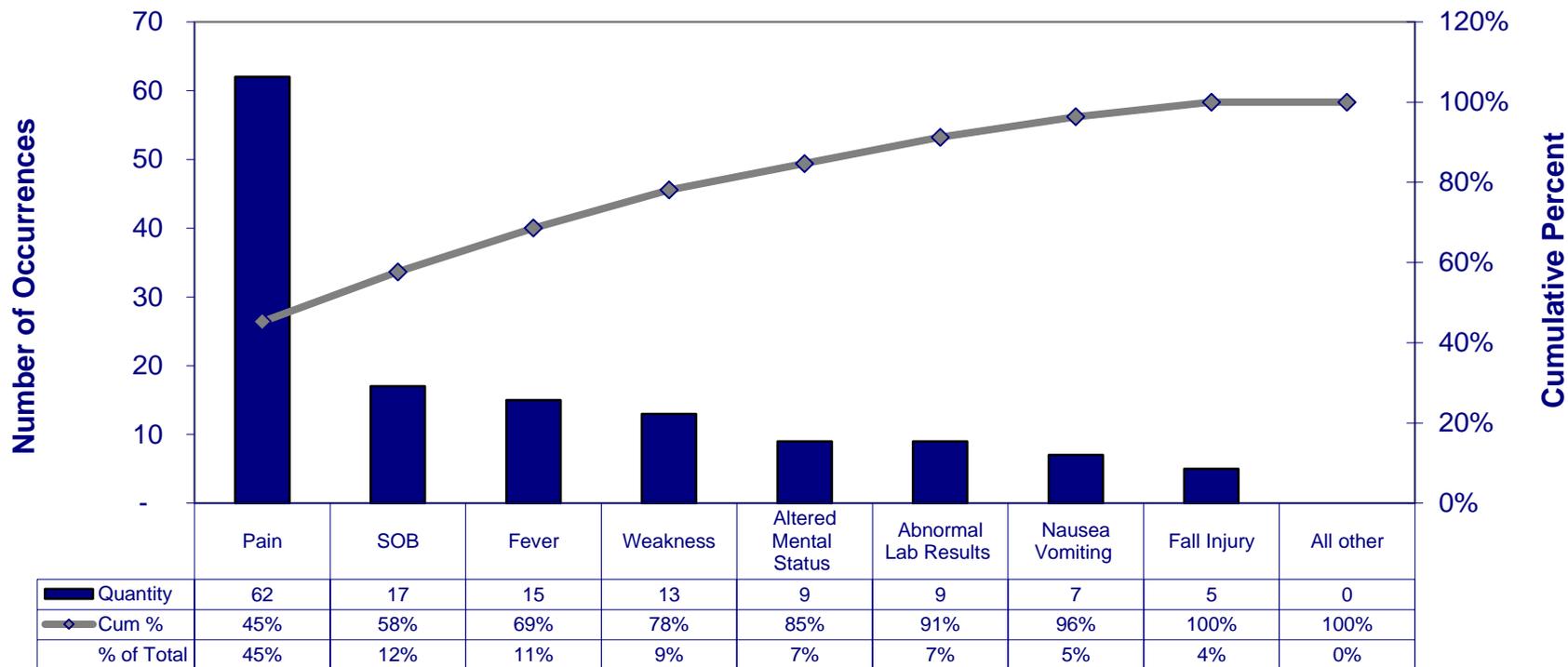
Time Period: November 2012 - January 2013

* Other: prostate, benign heme including sickle cell, malignant heme including myeloma, & MDS

Data Source: Quality Management Dept.

Diagnostic Data

Pareto Chart
Cancer Related Reasons
Patients Go To The ED

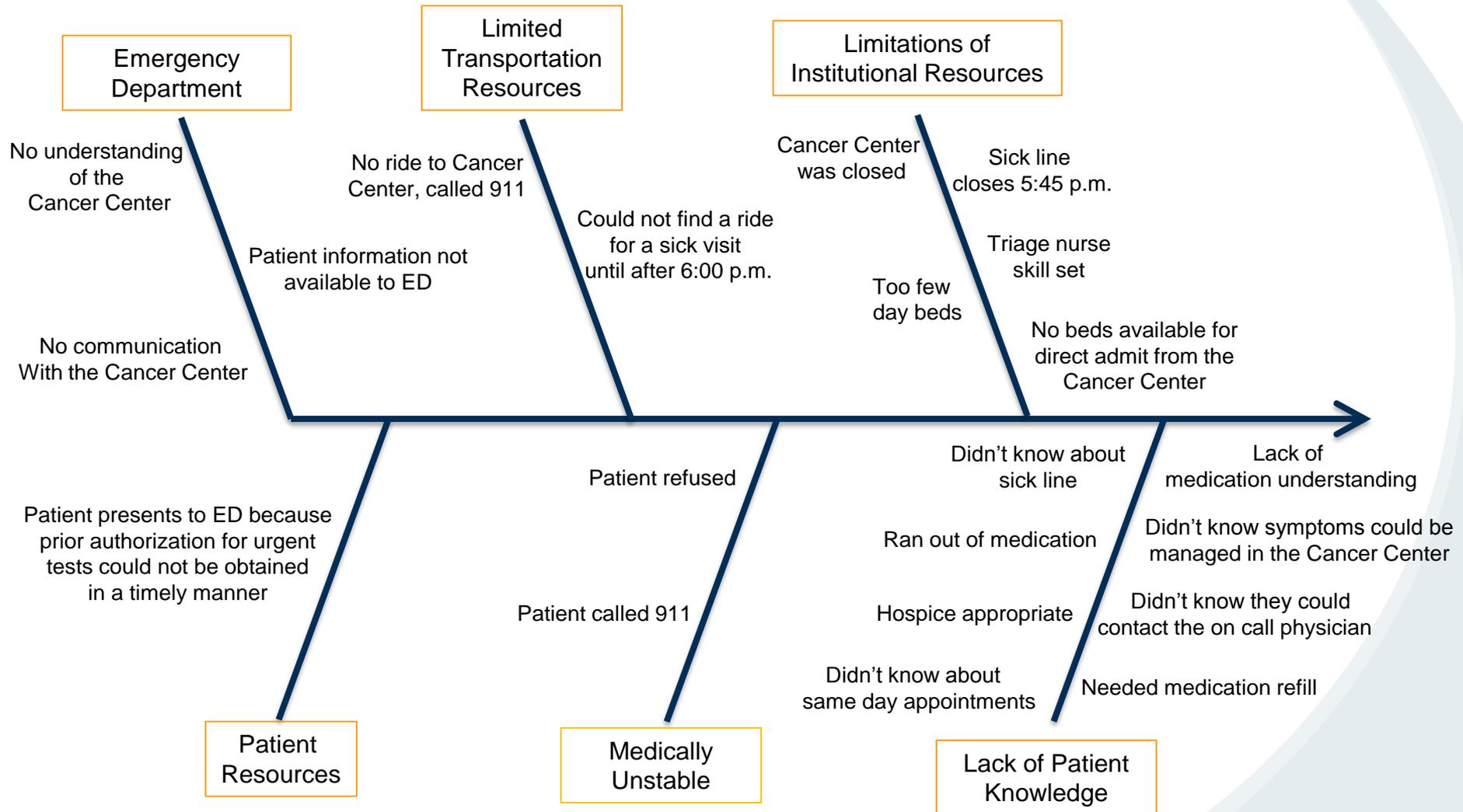


Time Period: November 2012 - January 2013

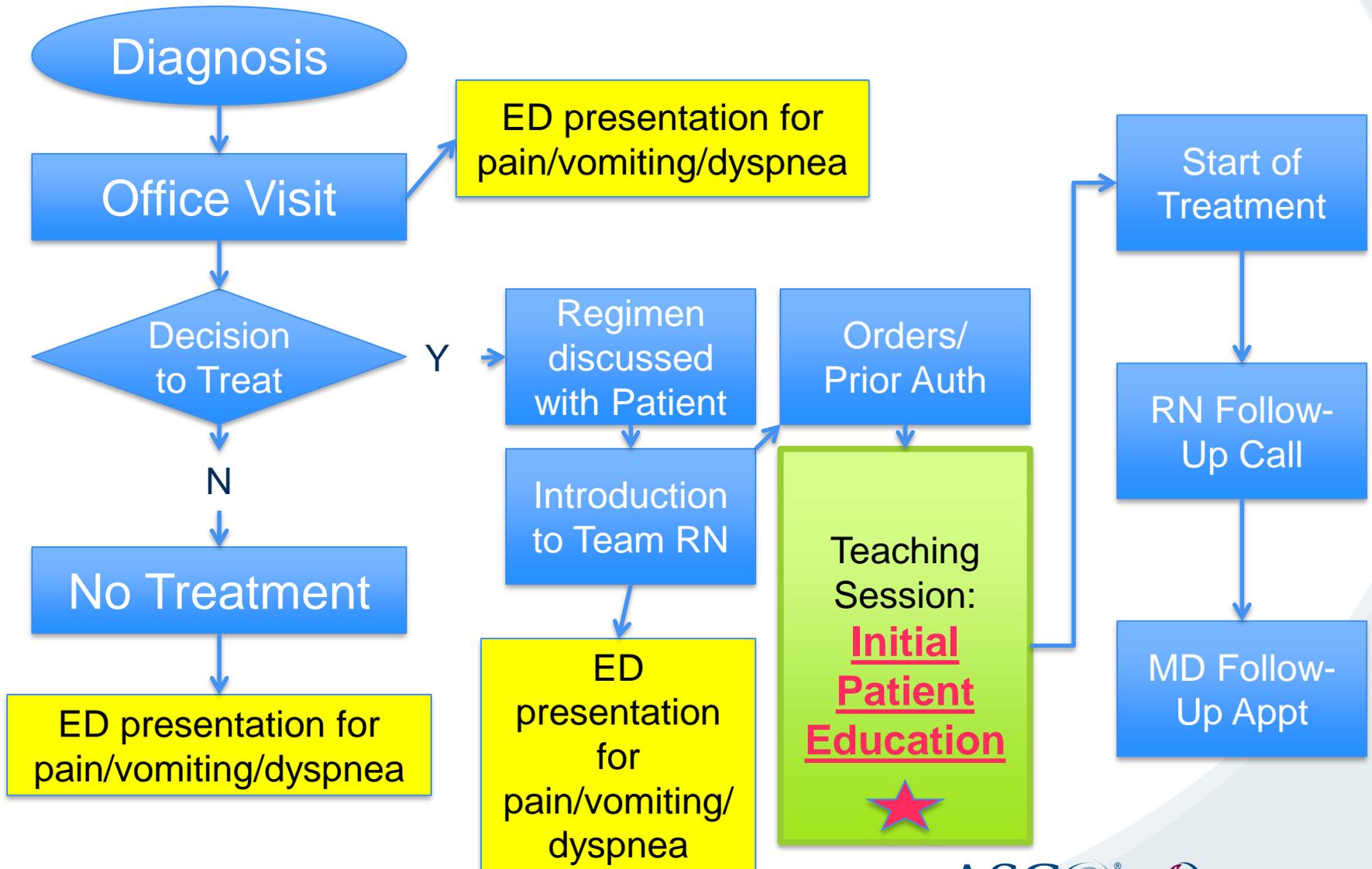
* Non-cancer related reasons have been omitted

Data Source: Quality Management Dept.

Why Do Patients Go To The ED



Patient Education Process Map

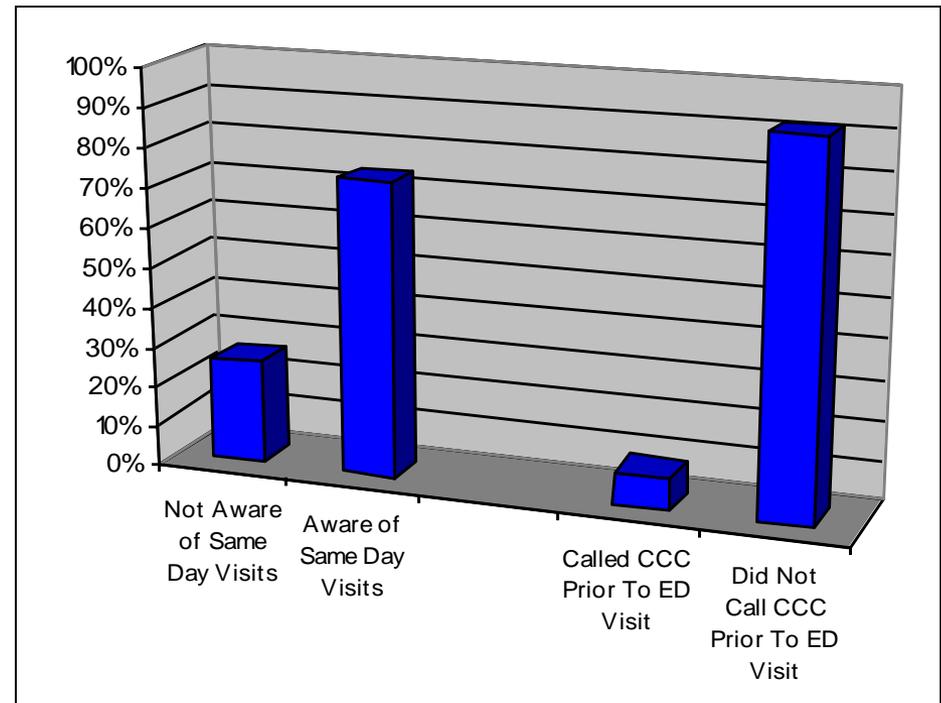


Patient Post Emergency Room Visit Questionnaire Results

ER Reason	Prior Sick Line Call?	Who Advised ER?	Why Did You Not Call Sick Line?	Aware of Same Day Sick Visit?	Have Transportation?	Live Alone?
Legs weak due to stroke	No	CNA	Not related to cancer	Yes	No	Yes
Trouble breathing, pain, fever	No	Call back from MD	MD told me to go to ED	No	Yes	No
Cellulitis	No	PCP		No	Yes	Yes
Bleeding	No	Westerly ER	Too sick to go to Cancer Center	Yes	Yes	No
Lump in throat	No		Not a patient yet	Yes	Yes	No
Chest Pain	No			No	Yes	No
Trouble breathing, pain	Yes	Weekend recording	After hours	Yes	No	Yes
Pain	No		Too much pain	Yes	No	Yes
Fall	No		Left message, went to ER before return call	No	Yes	Yes
Other	No	PCP		Yes	No	No

Patient Post Emergency Room Visit Questionnaire Results

- **Reason for ER visit ?**
 - Pain
 - Dyspnea
 - Infection
- **Did you call the CCC ?**
 - 92% no call prior to ED visit
- **Aware of sick day visits?**
 - 26% not aware of same day sick visits
- **Barriers to office visit**
 - transportation



Aim Statement

By March 1, 2014 achieve a 20% reduction in ED visits for non-urgent symptom management including pain, fever, and generalized weakness for the RIH adult lung cancer patient population.

Outcome Measure

- **Measure:** Number of Lung Cancer Patients Who Visit The Emergency Department
- **Patient population:** Adult Lung Cancer Patients
 - Exclusions (if any): Non-Cancer Related Events
- **Calculation methodology:** Number of Lung Cancer Patients Who Visit The Emergency Department Per Month / Number of Unique Lung Cancer Patient Visits In The Cancer Center Per Month
Numerator & Denominator (if applicable):
- **Data source:** Emergency Department & Cancer Center
- **Data collection frequency:** 60 day (IRB expedited retrospective chart review)
- **Data quality (any limitations):** Limited Access to Real Time Emergency Department Data Due to IRB

Materials Developed



To All Our Hematology/Oncology Patients:

You are important to us and we want to streamline your access to care. If you are sick and need to schedule a same-day sick visit or would like to speak with a nurse during regular clinic hours, please call the sick line.

The Sick Line Nurse Can Be Reached At (401) 444-3266.

When leaving a message, please be specific and state all symptoms.
Sick Line Hours: Monday thru Friday, 8:00 a.m. – 6:00 p.m.

Reasons To Call The Sick Line:

- Fever, 100.4 degrees or greater plus or minus shaking chills
- Nausea or vomiting, not controlled by your medications
- Any significant change you feel we should know about

For General Questions or Concerns Call (401) 444-5435.

Sick Line Hours: Monday thru Friday, 8:00 a.m. – 6:00 p.m.

Examples of Questions & Concerns:

- Can I change my appointment?
- I need to obtain blood test results, please state if it is related to treatment
- Prescription refills – 24 hour notice required

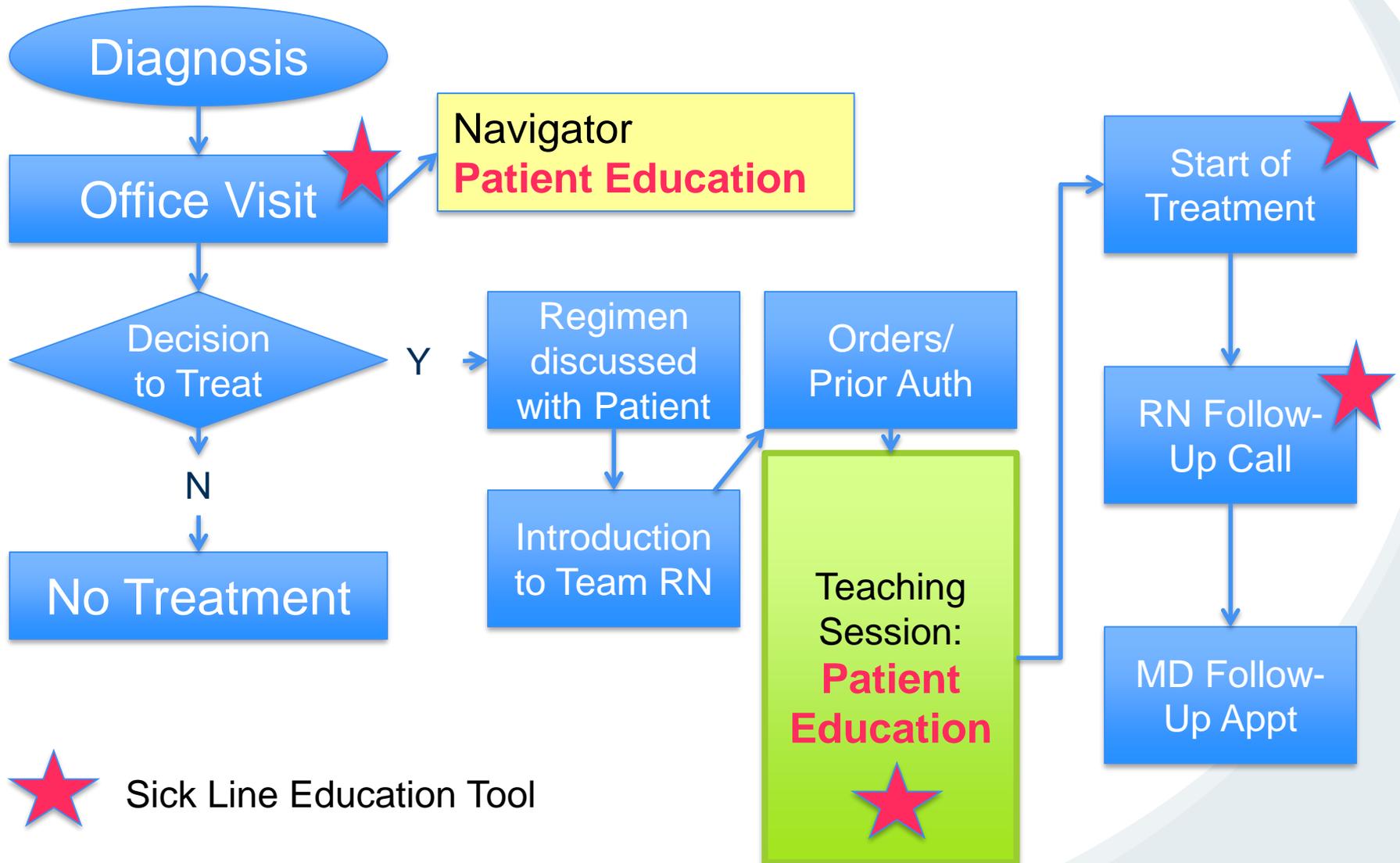
For Urgent Care After Hours Call (401) 444-4000.

To reach us before 8:00 a.m., after 6:00 p.m., on the weekend, or on holidays, please call (401) 444-4000, press 0 to reach the operator, and ask for the Hematology/Oncology fellow on call.

Your doctor is: _____

Latest Revision Date: 01/16/2014

Future State Process Map



 Sick Line Education Tool

Process Measure

- **Measure:** Number of Lung Cancer Sick Line Calls
- **Patient population:** Adult Lung Cancer Patients
 - Exclusions (if any):
- **Calculation methodology:**
 - $\frac{\text{Number of Unique Lung Cancer Patients Who Call The Sick Line}}{\text{Number of Unique Lung Cancer Patients Seen In The Cancer Center Over The Past Month}}$
- **Data source:** Cancer Center Sick Line Call Logs
- **Data collection frequency:** Daily
- **Data quality (any limitations):** Inconsistency In Sick Line Data Collection

Sick Line Data

	Lung Specific Calls / Total Sick Line Calls	Average Sick Line Calls Per Day	% of Lung Specific Calls
Pre Intervention			
Week 1 (2 days)	6 / 25	12.5	24%
Week 2 (3 days)	4 / 47	15.7	8.5%
Week 3 (3 days)	5 / 23	7.7	21.7%
Week 4 (3 days)	8 / 35	11.7	21%
		Average = 11.9%	Average = 18.8%

Balance Measures

- **Measure:** Capacity To Care For Same Day Sick Visits
- **Patient population:** Adult Lung Cancer Patients
 - Exclusions (if any):
- **Calculation methodology:**
 - Number of Patients Who Need Sick Beds / Sick Bed Capacity
- **Data source:** Sick Line Data Collection Tool-Patients Referred For Sick Visits; Triage Nurse To Indicate If Patient Sent To ER Due To Capacity
- **Data collection frequency:** Monthly
- **Data quality (any limitations):** Accuracy Of Data Entry On Sick Call Tool For Patient Disposition

PDSA Plan (Tests of Change)

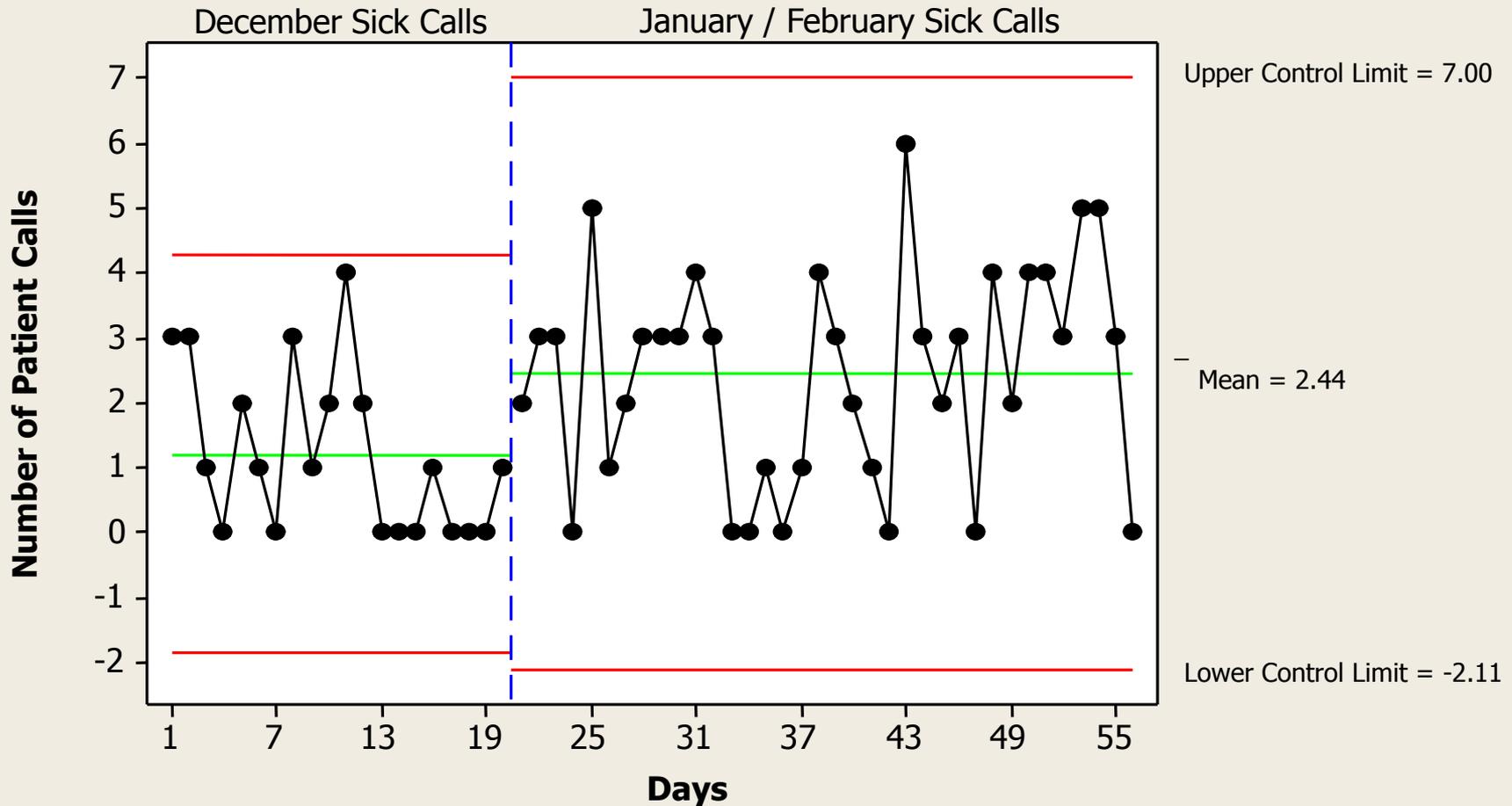
Date of PDSA cycle	Description of intervention	Results	Action steps
<p>PDSA Cycle 1 December 2, 2013</p> <p>December 16, 2013</p>	<p>Phone triage nurse began sick line data collection</p> <p>Nurse navigator distribution of sick line education tool to lung cancer patients</p>	<p>Inconsistent phone data collection</p> <p>Sick line education tool too “cumbersome”</p>	<p>Revise sick line data collection tool</p> <p>Revised education tool based on navigator and patient feedback</p>
<p>PDSA Cycle 2 January 2, 2014</p> <p>January 13, 2014</p>	<p>Navigator implemented revised education tool</p> <p>Implemented revised sick line data collection tool</p>	<p>Received positive patient feedback</p> <p>Sick line data collection improved</p>	<p>Nursing and navigator to review tool at each patient contact</p> <p>Reinforce use of revised sick line data collection tool</p>
<p>PDSA Cycle 3 February 8, 2014</p>	<p>Began tracking number of sick visits per day and number of patients sent to the ED</p>	<p>Inconsistent data collection</p>	<p>Triage nurse to indicate if patient sent to ED due to capacity</p>

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

Impact	High	<p>PDSA # 1 Nurse navigator distribution of sick line phone numbers in lung cancer multi clinic</p> <p>PDSA # 2 Revised sick line data collection tool</p>	
	Low		<p>PDSA # 3 Tracking number of sick visits per day and number of patients sent to the ED (Balance Measure)</p>
		Easy	Difficult
		Ease of Implementation	

Change Data

**Sick Line Calls by Lung Cancer Patients
(XmR/Individuals Chart, 2 Sigma)**



Conclusions

- A slight increase in the number of sick line calls by adult lung cancer patients was identified, based on this increase we are projecting a reduction in ED visits
- A review of January & February 2014 ED visits is pending, this information will determine if a 20% reduction in ED visits for non-urgent symptom management was achieved

Lessons Learned

- Patient education of nursing sick line call service appears to increase patient calls for symptom control and may lead to a reduction in the number of preventable ED visits
- There is a direct correlation between pain management and ED utilization by the adult lung cancer patient population
- Patient navigation and consistent phone triage assessment are essential to reducing preventable ED visits

Next Steps/Plan for Sustainability

- Continue to measure number of ED visits and sick line calls received post intervention to further evaluate the process
- Meet on a monthly basis to ensure sustainability
- Expand use of sick line education form to include Lymphoma & GI patients
- Provide education to the inpatient population during initial admission

Project Title: Patient Centered Cancer Care Assess & Reduce Preventable ED Visits

AIM: By March 1, 2014 achieve a 20% reduction in ED visits for non-urgent symptom management including fever, and generalized weakness for the RIH adult lung cancer patient population.

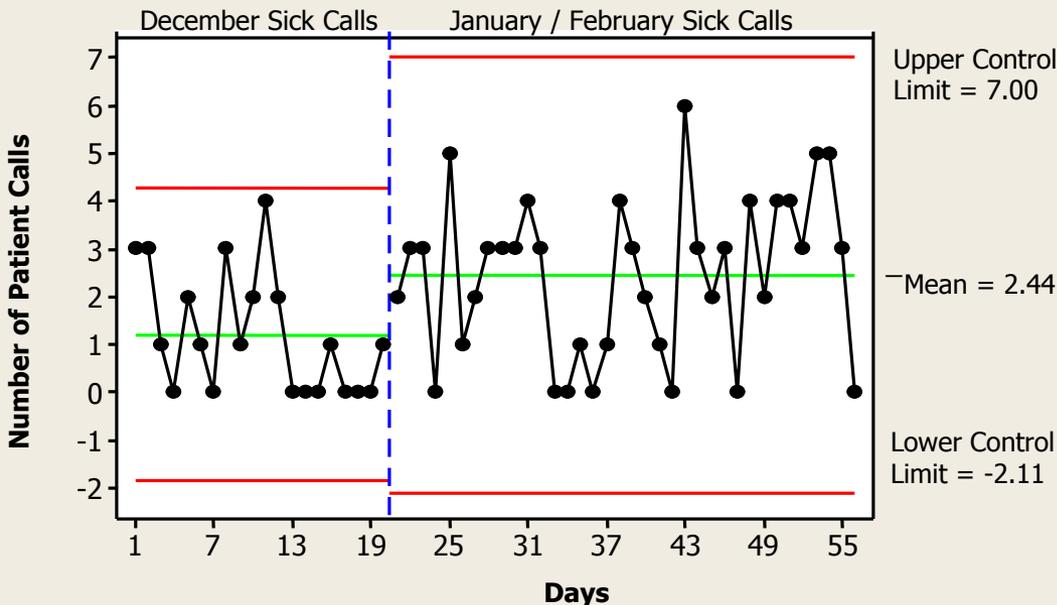
INTERVENTION:

- Collected and analyzed diagnostic data from retrospective ER chart reviews for cause of ER visit including diagnosis and presenting symptom
- Obtained and reviewed patient surveys: "Why Do Patients Present To The ED"
- Assembled a multidisciplinary team to review current process for patient education & future process map
- Developed and implemented a patient education tool to communicate sick line contact numbers
- Re-enforced availability of same day sick visits for symptom management

TEAM

- Mary Anne Fenton, MD, Oncologist
 - Megan Begnoche, RN, Nursing Quality & Safety Manager
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- PROJECT SPONSORS:**
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 - Susan Korber, RN, Cancer Services

**Sick Line Calls by Lung Cancer Patients
(XmR/Individuals Chart, 2 Sigma)**



CONCLUSIONS:

A slight increase in the number of sick line calls by adult lung cancer patients was identified. Based on the increase in sick line calls we are projecting a reduction in ED visits.

NEXT STEPS:

- Continue to measure number of ED visits and sick line calls received post intervention to further evaluate the process
- Meet on a monthly basis to ensure sustainability
- Expand use of sick line education form to include Lymphoma & GI patients
- Provide education to the inpatient population during initial admission