ASCO Quality Training Program

Reducing Unnecessary Emergency Department Visits for Medical Oncology Patients on Active Treatment

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Institutional Overview

The Sidney Kimmel Cancer Center at Thomas Jefferson University is an NCI-designated Cancer Center located in Philadelphia, PA.

There are a total of 47 medical oncologists and 17 advanced practice providers in the Department of Medical Oncology.

In all of the SKCC clinics there were 94,092 outpatient visits and 6,639 inpatient admissions in CY19, of which 8399 were new patients.

Jefferson Health has rapidly grown in recent years, and now includes 14 hospitals with 6,600 physicians and advanced practice practitioners. Oncology patients are currently seen in four advanced care hubs (Abington, North, Center City and South Jersey) and satellites clinics across the enterprise.

Team members

Team Leader:

- Nathan Handley

Team Members:

- Helen Evers-Hunt, same day clinic NP
- Zachary Quinn, hematology/oncology fellow
- Valerie Csik, director of Quality and Care Transformation

Extended team members:

- Fred Randolph – ED
- Adam Binder - quality officer, liquid tumors
- Kristen Harris – oncology triage RN
- Janene Palidora – outpatient oncology operations
- Claudia Thomas-Nembhard – clinical manager, oncology infusion center (Center City)
- Margaret Highley – nurse manager, oncology infusion center (Methodist)
- Andrew Chapman – chief of cancer services
- William Tester – medical director, oncology infusion center and same day clinic

Project Sponsor:

- Neal Flomenberg

Improvement Coach

- Charles Borden
- Tony Philips

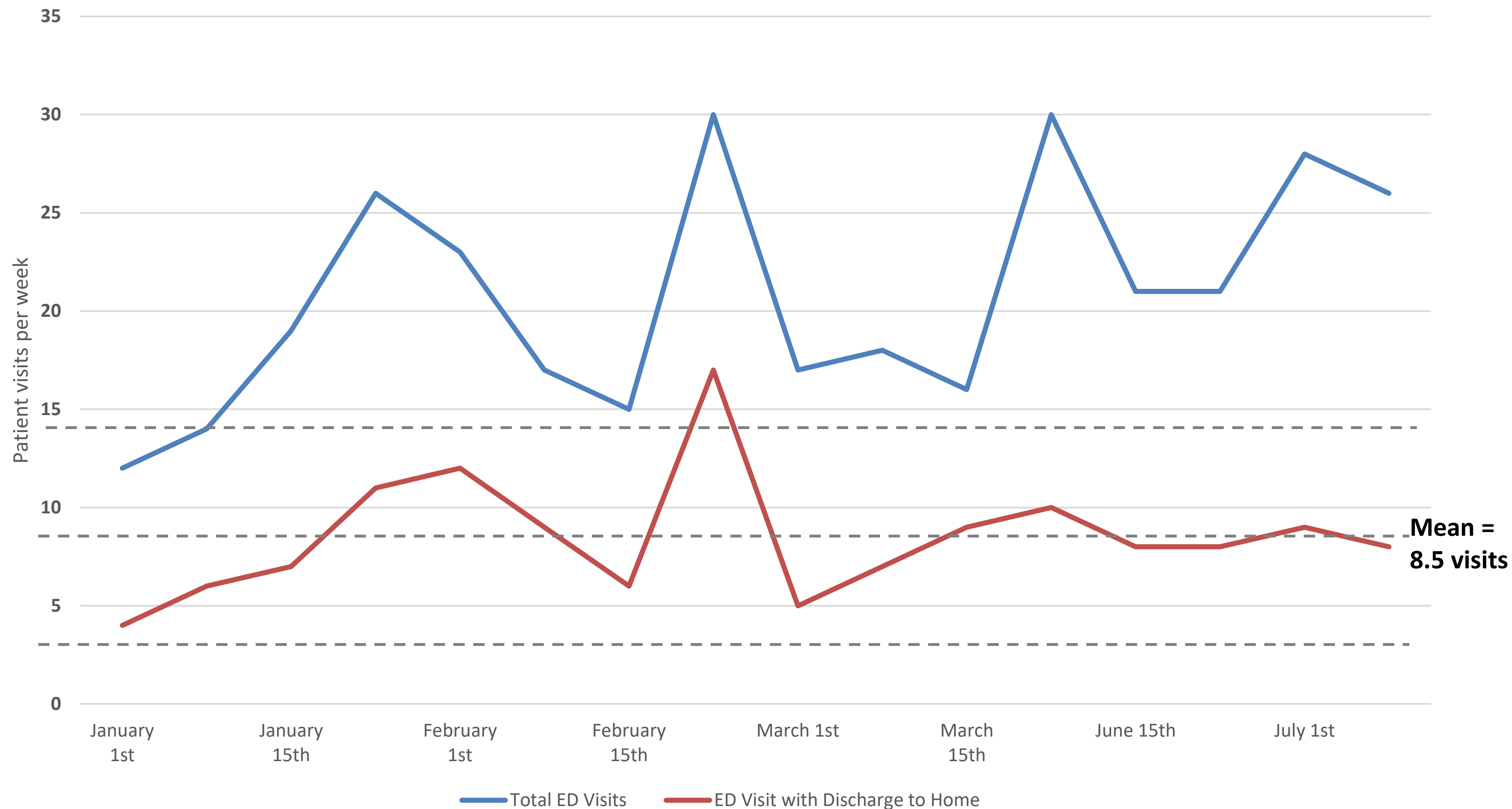
Problem Statement

Currently, 47.2% of medical oncology patients on active treatment (receiving IV or oral chemotherapy within the last 30 days) who present to the ED have conditions that do not require hospital admission. These visits are costly, may be preventable, and detract from patient experience.

Baseline data summary

Item	Description
Measure:	ED visits not leading to admission
Patient population: *(Exclusions, if any)*	Medical oncology patients on active treatment
Calculation methodology: *(i.e. numerator & denominator)*	numerator: ED visits not leading to admission denominator: total ED visits
Data source:	EMR
Data collection frequency:	Ad lib
Data limitations: *(if applicable)*	Limited to ED visits to Center City and Methodist

Baseline data



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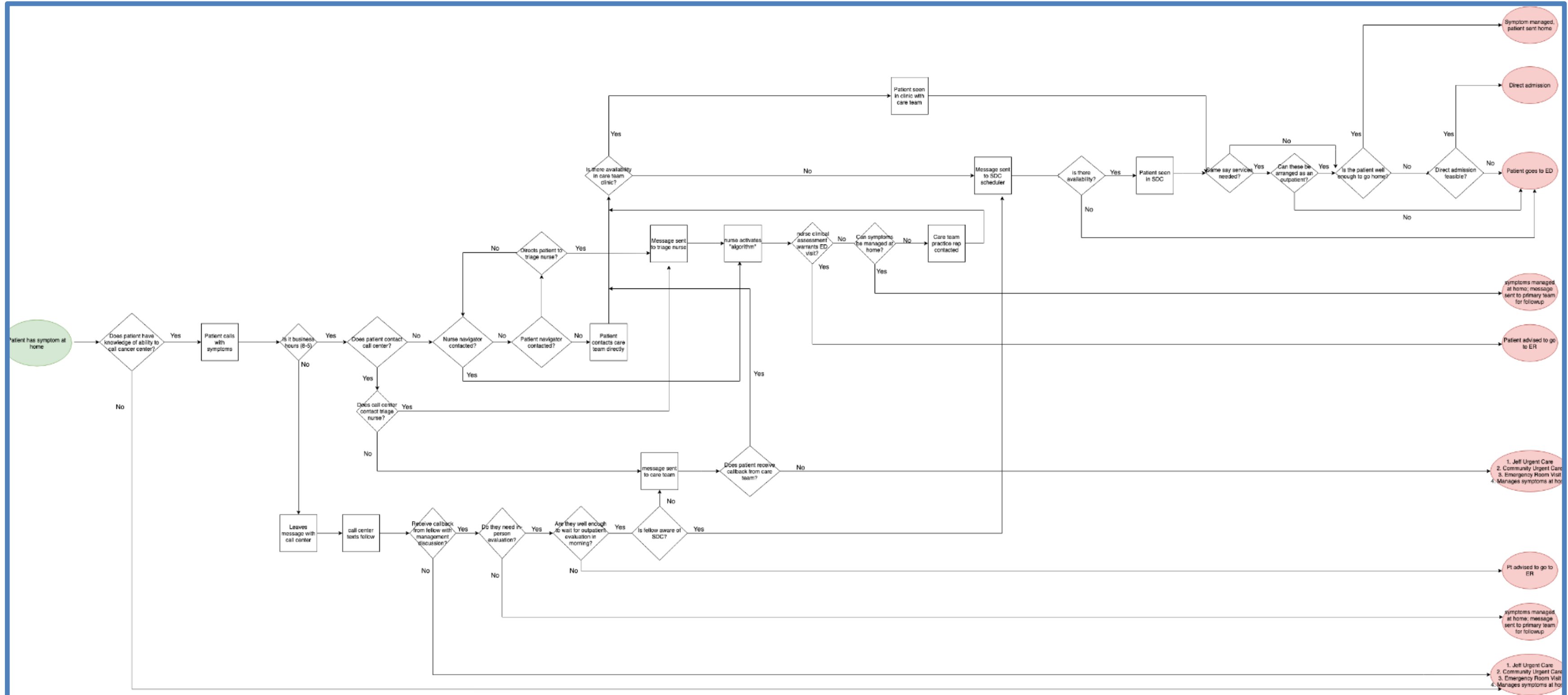
Aim Statement

For medical oncology patients on active treatment, we will reduce emergency department visits not leading to an admission by 20% by September 10th, 2020 (without increasing hospital admissions)

Process map



The current state is complex, error prone, and lacks standardization.

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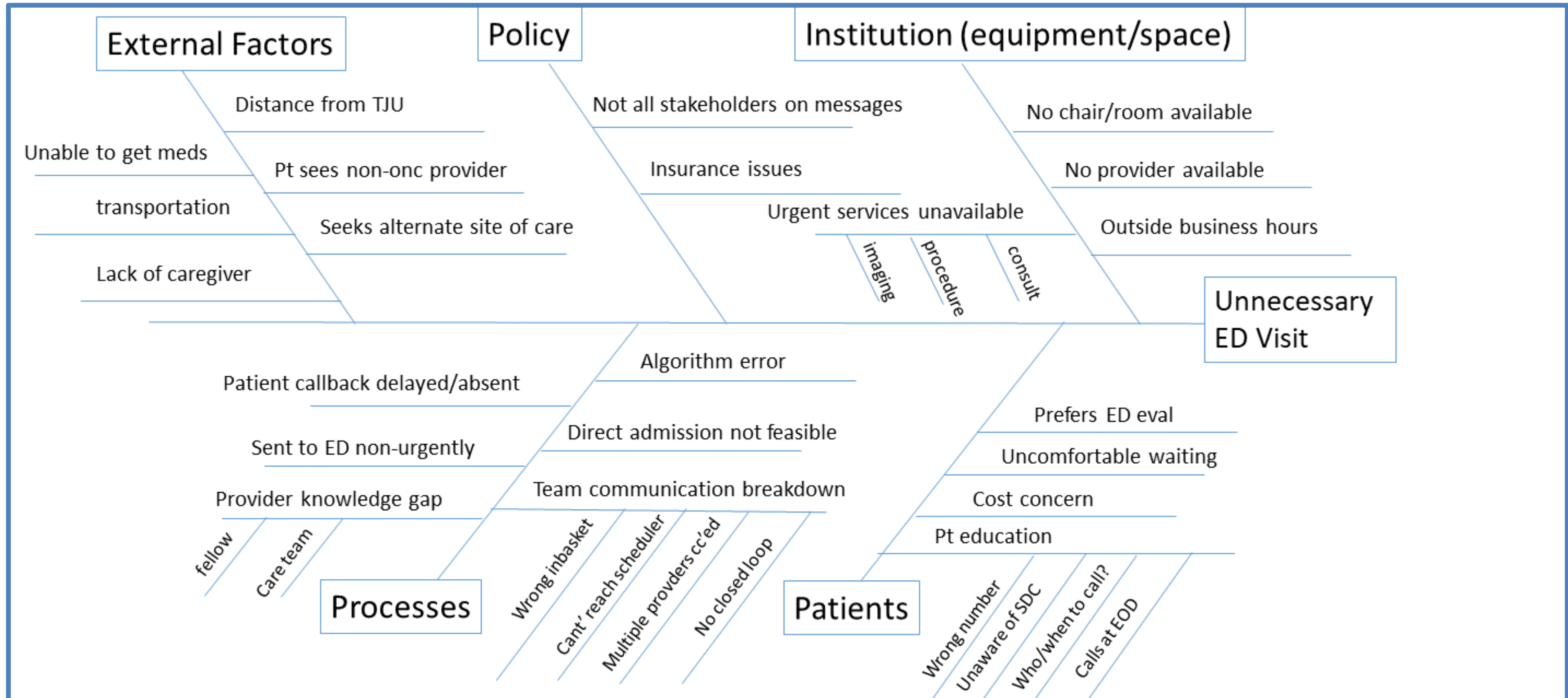
Cause and Effect diagram



A variety of possible causes exist. Based on conversations with stakeholders, we suspect lack of closed loop communication and inadequate patient knowledge regarding alternative sites of care are major drivers.

Priority / Pay-off Matrix

Impact	Easy	Difficult
High	Automated Same Day clinic referral based on patient outcomes Educate fellows how to schedule same day appointments Increase awareness of outpatient resources for patients	Acute care at home Same day advanced imaging Extend hours of same day clinic
Low		Allow ED triage to send to clinic or same day clinic Reserve hospital beds for direct admissions Partnership with urgent care for after-hours symptom management

Ease of Implementation

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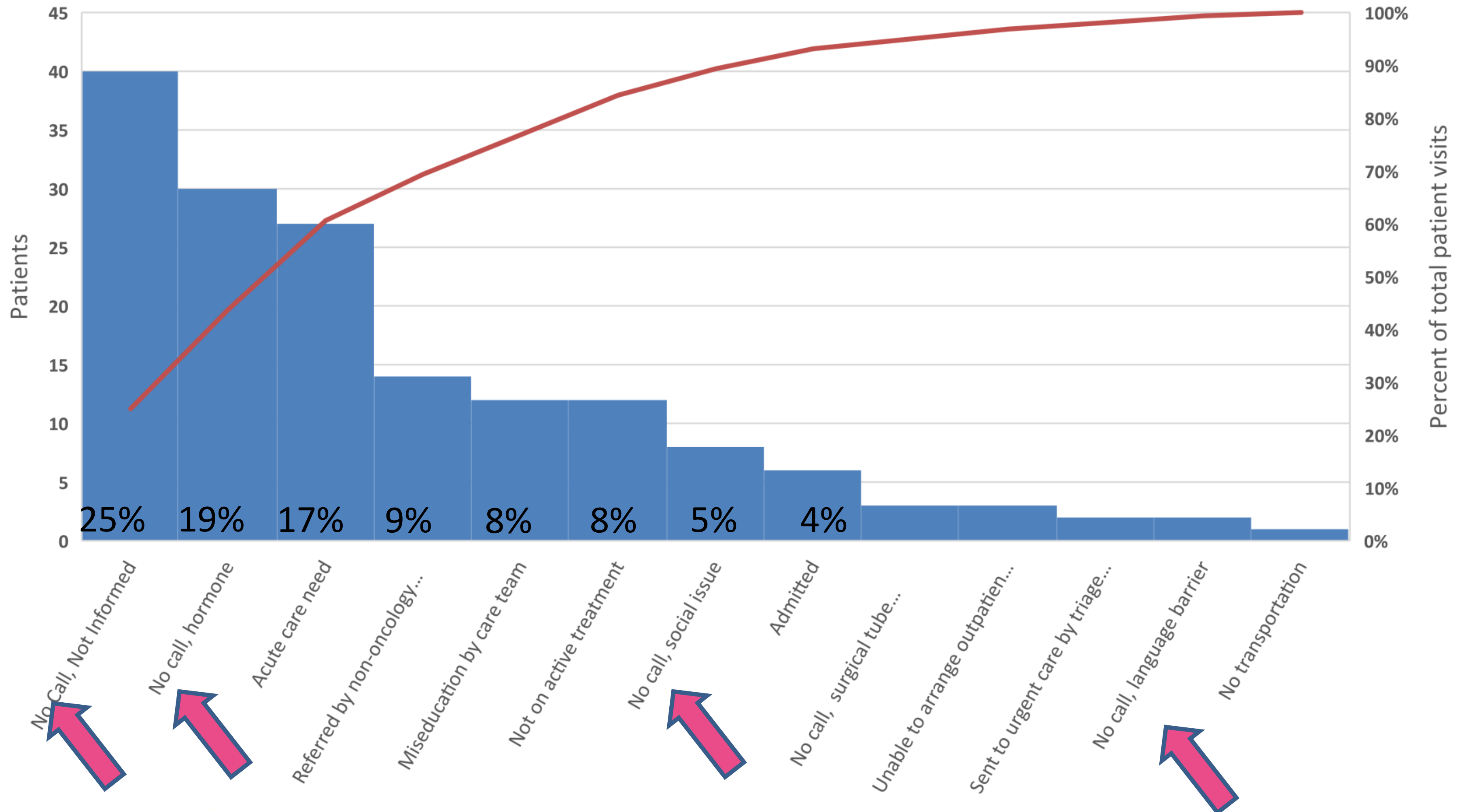
Diagnostic Data summary

Item	Description
Measure:	ED visits not leading to admission
Patient population: *(Exclusions, if any)*	Oncology patients on active treatment
Calculation methodology: *(i.e. numerator & denominator)*	Manual case review of 3 months of data
Data source:	EMR
Data collection frequency:	Ad lib
Data limitations: *(if applicable)*	Reason for visit not always clear from EMR

Process Measure

Diagnostic Data



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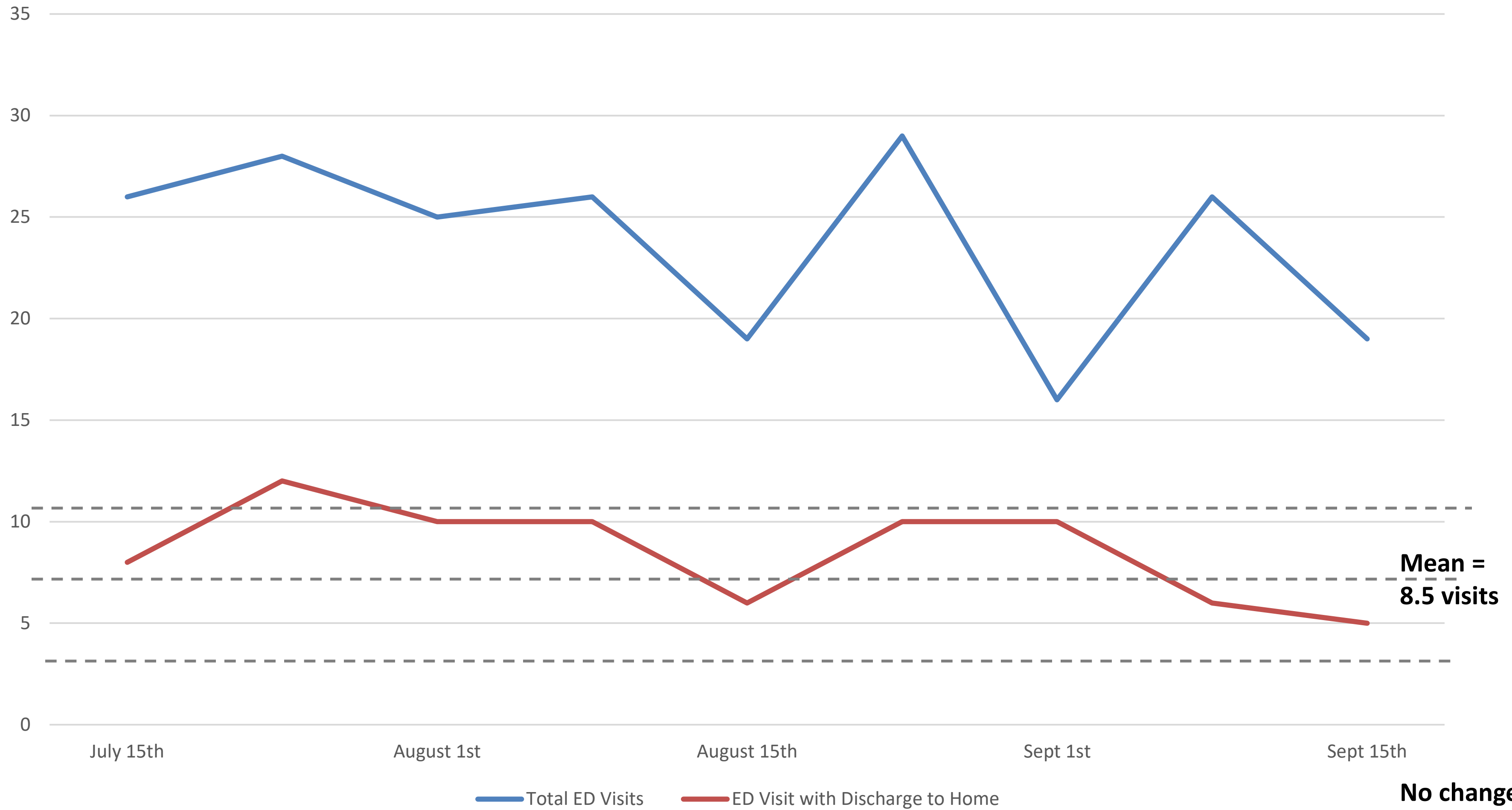
PDSA Plan

Date	PDSA Description	Result
July 15th, 2020	"Call First Campaign" started	• Business Cards and Flyers distributed to clinic with "Call First" information
July 15th, 2020	Educational arm of campaign initiated continued	• Triage phone nurse providing patient education • Patient navigators informed

Change Data



No change from pre-intervention

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Sustainability Plan

Next Steps	Owner
Review patient charts and call patients following an ED visit with discharge to home to review reasons that prompted visit	Helen
Continue to hand out business cards/flyers and have monthly reminders to navigators and triage nurses	Valerie
Change the hold music to incorporate call first message	Nate
Plan to review change data on October 1st	Zack

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Sustainability Plan

ED during clinc hours	Did Patient call or know to call first ?
N	Patient did call office and was advised by Dr. Basu to go to the ER to rule out MI/PE.
Y	Patient is homeless and uses ER for routine care, unable to reach patient, social work is involved.
N	Patient had abdominal pain from hernia that the ED reduced hernia and discharged patient
Y	Patient's daughter did call and was advised by Dr. Tester to take patient to ER for SOB r/o COVID
Y	Patient did call with increasing pain and was advised by Dr. Basu for emergent MRI (unable to get outpt.)
N	Pateint was seen via telehealth visit with Dr. Lin and was advised to ER for CT r/o PE for SOB
N	Pateint went to ER for blood pressure at home 170 systolic and weakness which was unchanged for 1 month
Y	Patient was lifting something and had torn his bicep tendon, was unable to lift his arm without pain.
N	Patient did call and fellow advised patient to go to ED for further evaluation of headache
N	Fellow called pt: CT the day prior +PE was instructed to come to ED to start on lovenox by Heme & Posey
N	Patient was recently admitted with urosepsis and developed cloudy urine again, he did not call
Y	Patient did not call and went to ED for Lantus pens that she could not get from PCP office
Y	Patient did call with complaints of vision change and pain with opening eyes and Dr Bhattacharya advised ER
Y	Patient with eye issues was transferred from Methodist to Wills EYE making another encounter and patient left AMA
N	Patient had labs done glucose 504, patient was phoned by RN and advised by RN to go to ED for evaluation
Y	Patient left Wills AMA 2 days prior, called Bhattacharya to inform still loss of vision and advised to return to ED
N	Patient called PCP who set up with their same day but patient missed app., said she did not know urgent care, went to ED
N	Patient went to ER secondary to MVA with neck and back pain for evaluation
N	Patient did call, issues with PCNU drain and was advised by Fellow to come to ER for evaluation
N	Patient did not call, fell and hit her head went to ED secondary to laceration
N	Patient had asthma exacerbation, breast patient currently receiving Anastrozole only
N	Patient had acute knee pain, breast patient on Anastrozole only
N	Patient had a COPD excerbation, breast patient on Anastrozole only
N	Patient with sorethroat and went to ER for COVID testing, patient did not call (hx. IVDA/noncompliance)
Y	Fell at home c/o hip pain possible syncope, home health aid called 911
N	Patient was bleeding from surgical breast wound, she did not call office
Y	Patient was bleeding from trach, patient called office and was instructed by ER by triage nurse to go to ED
Y	Sacral pain from a fall, was seen in office and adressed during visit patient had xray than a day later went to ED for pain
Y	Patient did call office and was advised by Dr. basu to go to ER based off recent CT scan that showed a SBO
N	Lower back pain, patient did not call office, breast patient receiving denosumab only
Y	continued vision loss, she did call the office and advised by Dr. Bhattacharya to go to ER
Y	S/P Right Total hip replacement, patient fell and joint dislocated from socket he was unable to weight bear or ambulate
N	Patient was seen in office by Dr. MacKenzie and felt patient needed to be ruled out for COVID and sent to the hospital
N	Patient was sent from infusion center for HTN (I was out on vacation this week)
N	Patient did call and fellow advised patient to go to ED for further evaluation of fevers, temp 101.8-102 (possible neutropenia)
Y	Patient seen by Dr. Bashir in office one day prior to ER visit, patient complaints of falls and headaches but not adressed, patient did not call

Sustainability Plan

18/31 (58%) did not call

- 4 breast patients receiving hormone therapy only
- 4 patients with social issues/failure to connect with PCP
- 4 presented for acute issues (MVA, trauma)
- 4 didn’t know to call (or didn’t know could call outside office hours)

Conclusion

- We aimed to reduced unnecessary ED visits for medical oncology patients on active treatment
- After identifying that most patients were not calling their care team to link to existing outpatient services, we created an intervention where we aimed to increase patient awareness to call first to access these services prior to going to the ED.
- We learned
    - a systemic approach to identifying systems issues
    - the importance of incorporating many shareholders to increase transparency and gain “buy-in”
    - ways to analyze data in order to best understand how to measure our intervention
- Maintaining focus on raising patient awareness to Call First is required for sustainability