

ASCO's Quality Training Program

Project Title: Improving Oral Chemotherapy Documentation in the Breast Medical Oncology Outpatient Practice

Presenter's Name:

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Institution:

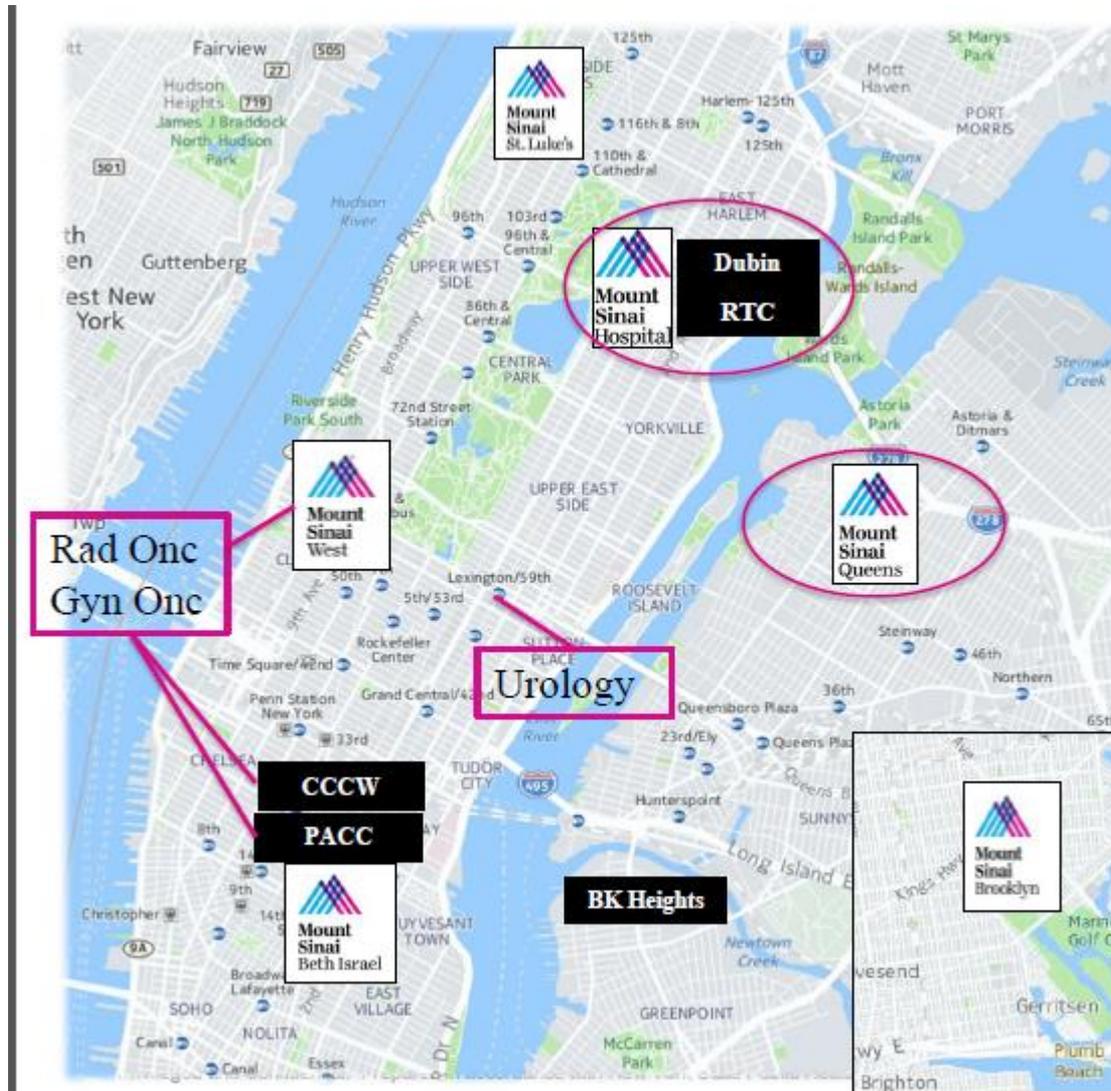
Icahn School of Medicine at Mount Sinai, NY, NY

Date: 1/26/2017

Institutional Overview: Icahn School of Medicine, Dubin Breast Center

- The Mount Sinai Health System includes approximately 6,100 primary and specialty care physicians; 12 minority-owned free-standing ambulatory surgery centers; more than 140 ambulatory practices throughout the five boroughs of New York City, Westchester, Long Island, and Florida; and 31 affiliated community health centers.
- The Tisch Cancer Institute plays a key role in the Mount Sinai Health System, which is one of the largest health care systems in the nation, and is a vital component of the Icahn School of Medicine at Mount Sinai.
- The Tisch Cancer Institute was established in 2008, through the generosity of James and Merrill Tisch. Since that time, TCI has recruited more than 55 prominent researchers and physicians whose expertise spans basic, clinical, and population science research.
- The faculty practice at Icahn School of Medicine, the Dubin Breast Center (DBC) and Ruttenberg Treatment Center (RTC) includes over 20 solid tumor oncologists
- The Dubin Breast Center has 5 medical oncologists
- The number of new analytic cases per year is over 600 at the Dubin Breast Center alone

The Mount Sinai Health System



Problem Statement

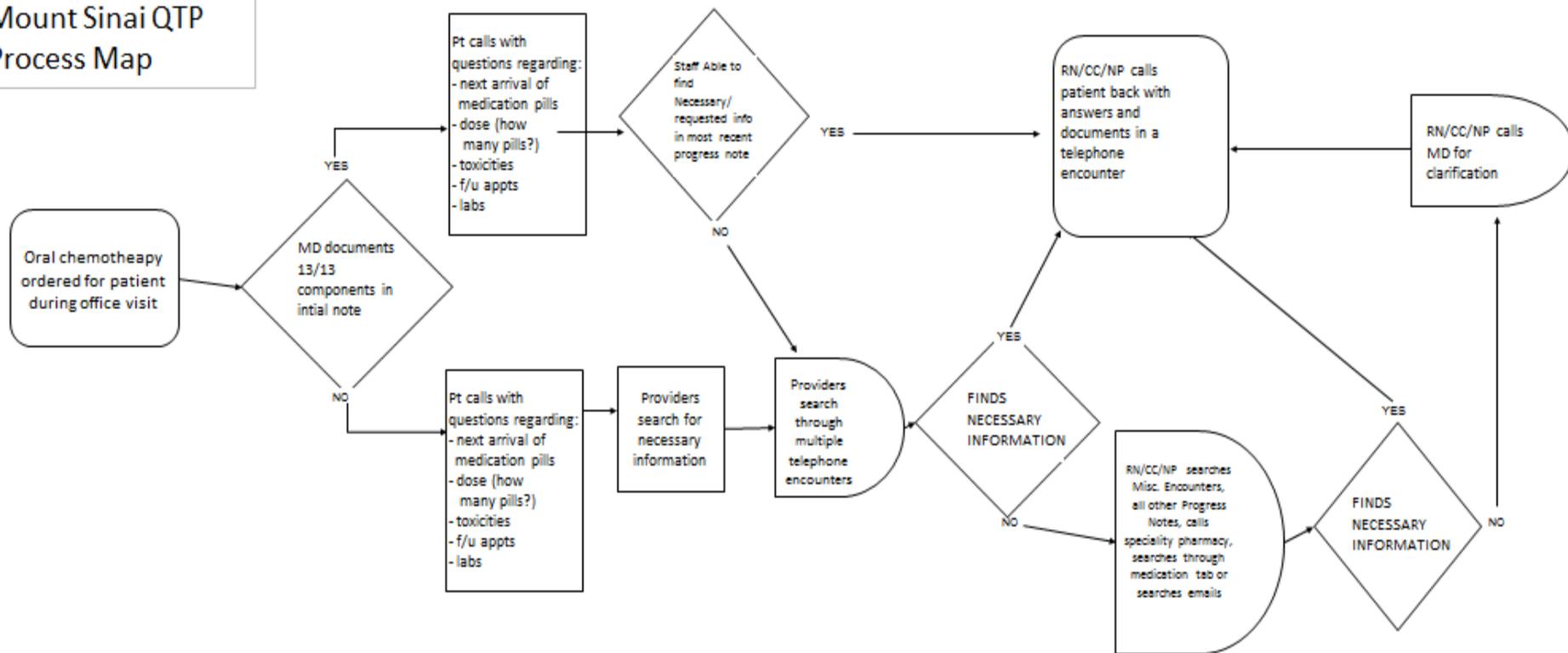
0 % of Breast Oncology patients have **complete** or easily found documentation of an oral chemotherapy care plan as per QOPI standards, resulting in clinical providers spending an inordinate amount of time trying to find answers to patient phone calls regarding dosage, adverse effects and follow up schedule

Team Members

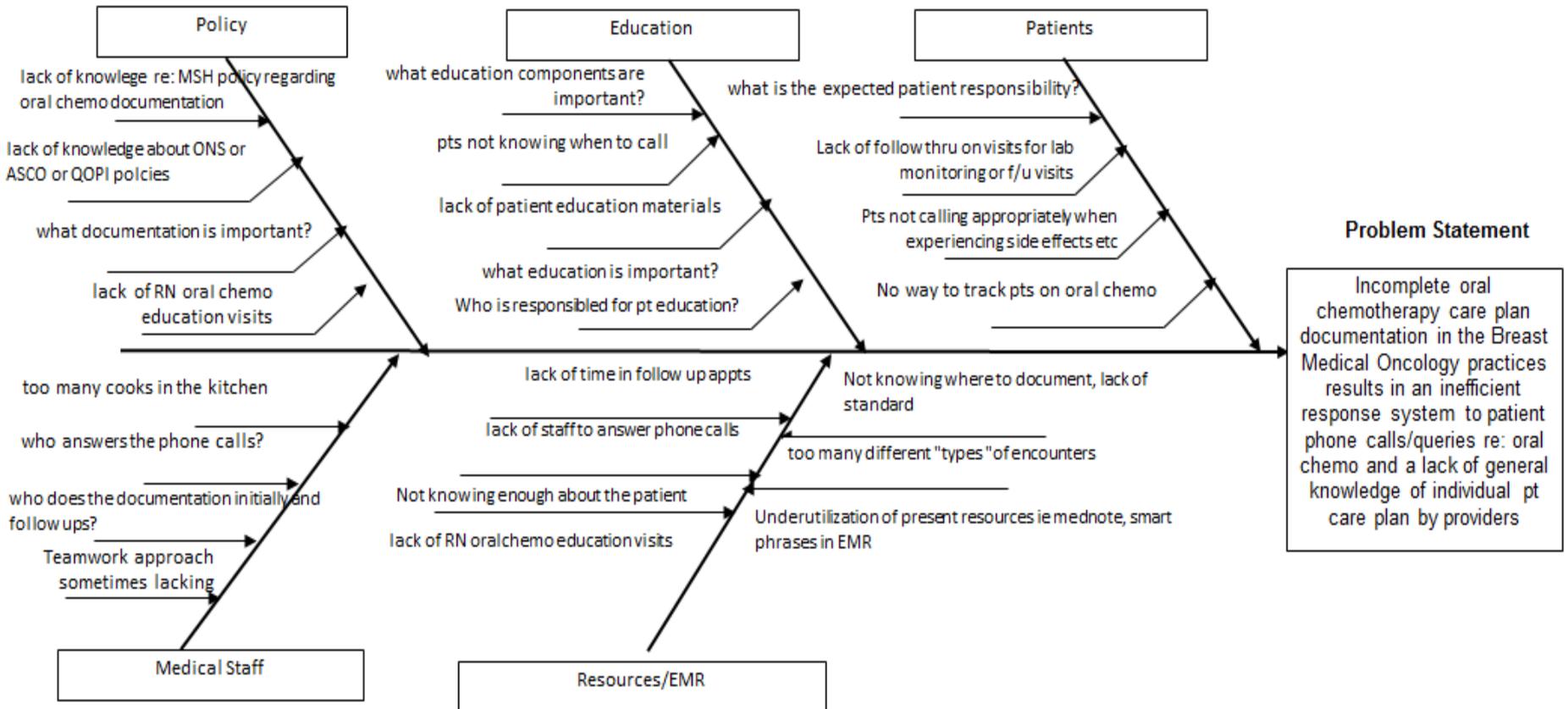
Role	Name	Discipline
Project Sponsor	Marilyn Hammer	Nursing Leadership, Oncology
Team Leader	Aarti Bhardwaj	Medical Oncology, Breast
Core Team Member	Kate Fitzpatrick	Senior Clinical Coordinator
Core Team Member	Katie Hynes	Director Nursing Education, RTC
Other Team Member	Fayth Edillor	Pharmacy contact
Other	Anika Evans-Smith, Kristine Lutkowski	EPIC team for Oncology

Process Map

Mount Sinai QTP Process Map

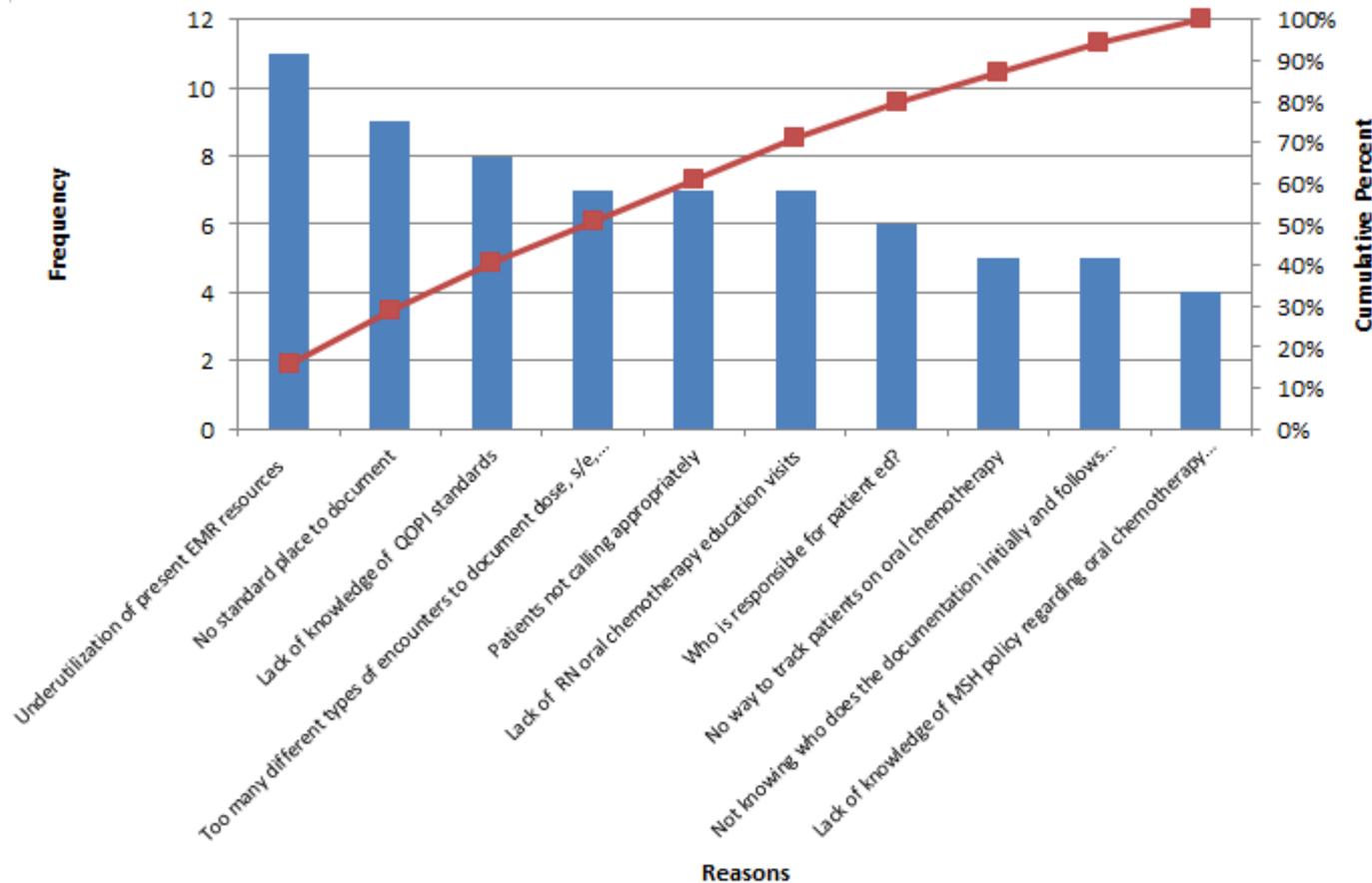


Cause & Effect Diagram



Diagnostic Data

Perceived Causes for Poor Oral Chemotherapy Documentation



Top 4 Barriers:

- Underutilization of present EMR resources
- No standard place to document
- Lack of knowledge of QOPI standards
- Too many different type of EMR encounters

Aim Statement

We aim to improve the number of components of an oral chemotherapy care plan (as per QOPI standards) documentation in the EMR in the breast medical oncology practice at TCI from 43% (5/13 components) to 80% (10/13) by 1/2017

QOPI Measures

Core	13oral1	Documented plan for oral chemotherapy (defect-free measure, 13oral1a-13oral1e) (Test Measure)
Core	13oral1a	Documented plan for oral chemotherapy: dose (Test Measure)
Core	13oral1b	Documented plan for oral chemotherapy: administration schedule (days of treatment/rest and planned duration) (Test Measure)
Core	13oral1c	Documented plan for oral chemotherapy: lab and toxicity monitoring (Test Measure)
Core	13oral1d	Documented plan for oral chemotherapy: frequency of office visits/contacts (Test Measure)
Core	13oral1e	Documented plan for oral chemotherapy: provided to patient prior to start of therapy (Test Measure)
Core	13oral2	Oral chemotherapy education provided prior to the start of therapy (defect-free measure, 13oral2a-13oral2g) (Test Measure)
Core	13oral2a	Oral chemotherapy education provided prior to the start of therapy : safe handling (Test Measure)
Core	13oral2b	Oral chemotherapy education provided prior to the start of therapy : indications (Test Measure)
Core	13oral2c	Oral chemotherapy education provided prior to the start of therapy : schedule and start date (Test Measure)
Core	13oral2d	Oral chemotherapy education provided prior to the start of therapy : missed doses (Test Measure)
Core	13oral2e	Oral chemotherapy education provided prior to the start of therapy : food and drug interactions (Test Measure)
Core	13oral2f	Oral chemotherapy education provided prior to the start of therapy : side effects and toxicities (Test Measure)
Core	13oral2g	Oral chemotherapy education provided prior to the start of therapy : clinic contact instructions (Test Measure)

Core 15:
Patient consent documented
in practitioner note

Measures

Process Measure:

- Number of documented components of oral chemotherapy care plan

Patient population:

- All patients on NEW oral chemotherapy seen at the breast oncology outpatient practice from mid-October to Mid-January, 2017

Calculation methodology:

- Numerator: Number of QOPI components documented from initial note and in subsequent progress notes and med notes only
- Denominator: 13 QOPI measures

Data source: staff reporting

- EMR, initial note, progress notes from in person patient encounters and Med Notes

Data collection frequency: Weekly and Monthly

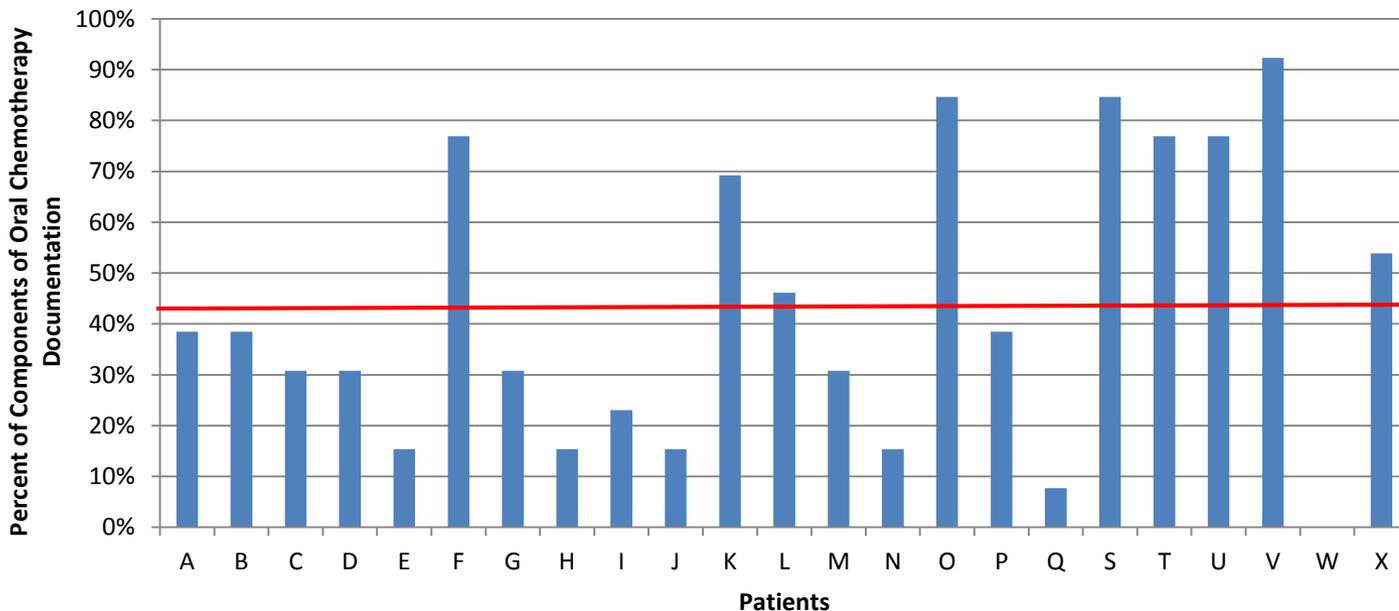
Data quality(any limitations): Accuracy and completeness of documentation in encounters, i.e not just carrying forward etc, tracking all pts on oral chemotherapy in the practice based on accuracy of staff reporting

Measures

- **Outcome Measure:**
 - Staff Reporting of issues/satisfaction
- **Population:**
 - All clinical coordinators, nurses and NP's that complete survey
- **Calculation methodology:**
 - N/A
- **Data source:**
 - Staff Survey responses before and after implementation of tools
- **Data collection frequency:** After implementation, assessment in January 2017
- **Data quality(any limitations):** Low N, Poor participation in survey taking

Baseline Data: Chart Audit

Documentation of Components of Oral Chemotherapy Care Plan



Average Number of Documented Components of Oral Chemotherapy Care Plan (43% or 6/13)

Baseline Data- Staff Survey

1. After you have a patient encounter (telephone call or office visit) where do you document the patient's complaints, report symptoms or document any changes made to their regimen?

Answers: "Telephone encounter, progress note, miscellaneous encounter, snapshot"

2. How often are your patients consented prior to receiving oral chemotherapy?

Always- 2 responses

Often- 1 response

Sometimes- 2 responses

Rarely- 0 responses

Never- 0 responses

3. What is your process of consenting patients on oral chemotherapy and verification of consent?

Answers: "MD discusses and then MD/NP/RN gets signature, Provides the consent form to patient, discussion with oncologist then consent scanned into media, MD consents with NP, no education appt is made so usually done in practice"

4. Do you or does someone in your practice provide education prior to starting a patient on oral chemotherapy?

Always- 3 responses

Often- 0 responses

Sometimes- 1 response

Rarely-1 response

Never- 0 responses

If so, do you document this education was completed?

Always-1 response

Often-1 response

Sometimes-1 response

Rarely-1 response

Never-1 response

If so, how and where?

Answers: "In epic note, in office visit note, MD notes, office note, unsure"



Baseline Data- Staff Survey

5. How often do you find it difficult to locate the needed information about a patient's oral chemotherapy regimen and any changes that have been made to their treatment plan?

Always- 0 responses

Often- 2 responses

Sometimes- 3 responses

Rarely- 0 responses

Never- 0 responses

If so, in what way?

"Can't always tell what cycle-day-dose, sometimes notes are copied forward without most current info, Dosing not always clear or the day of the cycle is unclear, occasionally no info is written about side effects, can't tell when they started the medication"

On average how many places do you look for this information?

1-3 - 3 people chose this answer

3-5 - 2 people chose this answer

5 or more- no one chose this answer

6. How often can you find what you need in epic easily without the use of outside resources? (email, eg.)

Always - no one chose this answer

Often - 2 people chose this answer

Sometimes- 3 people chose this answer

Rarely - no one chose this answer

Never- no one chose this answer

Baseline Data- Staff Survey

7. How satisfied are you with the current process for documenting and keeping track of patients on oral chemotherapy?

Not at all- 1 person chose this answer

Somewhat- 3 people chose this answer

Neutral- 1 person chose this answer

Pretty satisfied- no one chose this answer

Very satisfied- no one chose this answer

8. Do you feel confident that the current documentation practices allow us to safely monitor patients throughout their treatment with oral chemotherapy?

Not at all- 1 person chose this answer

Somewhat- 2 people chose this answer

Neutral- no one chose this answer

Yes- 2 people chose this answer

Definitely- no one chose this answer

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

High Impact	<ul style="list-style-type: none"> • Use of med note function • Use of smart phrases specific to oral chemo • Providing personalized educational material • Stocking room with each education form 	<ul style="list-style-type: none"> • EPIC reminders • Compliance days • Use of mednote under review mode • Oral chemo nursing or pharmacy follow-up system • Compliance with more QOPI parameters (example oral-13) • Creating our own chemopharmacy
	<ul style="list-style-type: none"> - RN education sessions/reinforcement of use of EMR resources 	<ul style="list-style-type: none"> -Patient input on oral chemotherapy compliance - Extra visit by patient to verify medication received
Low Impact		
	Easy	Difficult

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
8/1/2016 - 10/10/2016	<p>A. Develop Materials</p> <ol style="list-style-type: none"> 1. Epic smart phrase for initial note 2. Epic Med note smart phrase for subsequent telephone encounters 3. Add "oral chemo inquiry" as reason for call 4. Customized teaching materials for 4 drugs <p>B. Devise plan for data collection</p> <p>C. Obtain baseline data and perform Staff Survey</p>	<p>Optimal development completed while working with epic team</p> <p>Will have staff inform of us of any new oral chemo pts and will also get updates from "comm care" pharmacy liaison</p> <p>Confirmed documentation is poor and therefore obstructs providing efficient care</p>	<p>Try to get comm care rep to document in epic</p> <p>(not allowed by compliance office)</p>
10/17/2016 - 10/21/2016	<p>Educate staff on use of initial smart phrase and subsequent smart phrases for med note</p>	<ol style="list-style-type: none"> 1. Meeting held with staff on 10/17. Co-director of Dubin Breast Center present 2. Subsequent follow-up email with instructions sent that week with periodic reminders 	<p>Encourage staff to use resources in epic and new educational handouts</p> <p>Make med note able to viewed in "chart review" mode rather than needing to go into an encounter</p>
10/17/2016 - 1/20/2017	<p>Pilot new process and review results 1/20/2017</p> <p>Obtain unofficial feedback throughout</p> <p>Survey staff</p>	<p>"redundant"</p> <p>"easy to use"</p> <p>"can we see med note in chart review"</p>	<p>Encourage any med update to prompt an update in the med note with or without smart phrase for easy follow up</p>

Materials Developed and in Development

For Initial Documentation:

- Developed speciality-specific, comprehensive “Smart Phrases” for capecitabine, everolimus, lapatinib, and palbociclib that include all necessary QOPI components

For Subsequent documentation: subsequent patient encounters or telephone encounters

- “Smart Phrase” within Med Note Tab that carries through with each medication dose change

We included documented consent as a required component

- Consent forms already developed with scanning process

Materials Developed (smart phrase for initial documentation)

Discussed management of Stage IV breast cancer and intent of treatment is for palliation or tumor control to decrease disease and/or symptom burden. Discussed rationale for single agent chemotherapy in the Stage IV setting in the form of xeloda/capecitabine:

Dose: 1000 mg twice daily. Discussed xeloda is a medication given in pill form 1000mg/m2 twice daily (***) pills in AM/PM), taken 2 weeks on and 1 week off.

Current treatment will be continued until progression of disease/lack of efficacy or if untreatable or overwhelming toxicity develops

- Discussed adverse effects of xeloda including Hand-Foot-Syndrome (54-64%), and so recommended aggressive moisturization with either aquaphor or udder cream twice daily, increased risk of cytopenias and thus increased risk for infection (grades 3/4: 15% to 44%) and diarrhea (47% to 57%, grades 3/4: 2% to 13%) and fatigue and decreased fertility among others.

Discussed safe handling instructions of xeloda. Do not crush pills. If the tablet is crushed or broken, do not touch the contents. If you do touch the contents or get it in your eyes, wash hands or eyes right away.

Discussed that if a dose is missed, do not double the next dose, stay on schedule

Patient understands risks and benefits of this chemotherapy in the metastatic setting to palliatively control disease. Patient had opportunity to ask questions and she consents to plan.

Oral and written consent provided by patient.

Recommend f/u in 2 weeks to check cbc and lfts and assess A/E and then at least monthly f/u thereafter. During therapy, CBC with differential, hepatic function, and renal function should be monitored. Monitor for diarrhea, dehydration, hand-foot syndrome, etc.

Discussed specific management of diarrhea, given immodium RX and management of HFS

Food/Drug interactions discussed, including take 30 mins after a meal, with water and discuss with your provider if you take warfarin for example

Discussed symptoms that should trigger a phone call to our office including but not limited to fever, abnormal bleeding, allergic reaction, shortness of breath, chest pain, mouth sores, uncontrolled nausea, vomiting or diarrhea or new onset confusion among others.

Given lexicomp written information on Xeloda

Before initiation of a chemotherapy regimen, each patient is given written documentation, including, at minimum:

- A. Information regarding his/her diagnosis
- B. Goals of therapy
- C. Planned duration of chemotherapy, drugs, and schedule
- D. Information on possible short- and long-term adverse effects, including infertility risks
- E. Regimen- or drug-specific risks or symptoms that require notification and emergency contact

information, including:

- a. How to contact the practice or organization
- b. Symptoms that should trigger a call
- c. Who should be called in specific circumstances (oncologist or other provider)
- F. Plan for monitoring and follow-up, including appointments with the practitioner or laboratory testing

Materials Developed (Med Note smart phrase for subsequent documentation)

The screenshot shows a software window titled "Medication Notes". The main content area displays a template for "Notes applied to all AMLODIPINE BESYLATE medications". The template text is as follows:

ORAL CHEMOTHERAPY DOCUMENTATION

MEDICATION AND DOSE: {MEDICATION AND DOSE:32517}

DATE INITIATED: ***

TOTAL DAYS IN CYCLE: {DAYS IN CYCLE:32714}

Monitoring Requirements: {Requirements:32716}

Confirmed next appointment: ***

Pharmacy medication is ordered through: {Pharmacy:32717}

The text "{MEDICATION AND DOSE:32517}" is highlighted in black. The text "Palbociclib (Ibrance) {PALBOCICLIB DOSE PRESCRIBED/CURRENT:32722}" and "Everolimus (Afinitor) {EVEROLIMUS DOSE MG:32713}" are highlighted in yellow.

ORAL CHEMOTHERAPY DOCUMENTATION

MEDICATION AND DOSE: {MEDICATION AND DOSE:32517}

DATE INITIATED: ***

TOTAL DAYS IN CYCLE: {DAYS IN CYCLE:32714}

Monitoring Requirements: {Requirements:32716}

Confirmed next appointment: ***

Pharmacy medication is ordered through: {Pharmacy:32717}

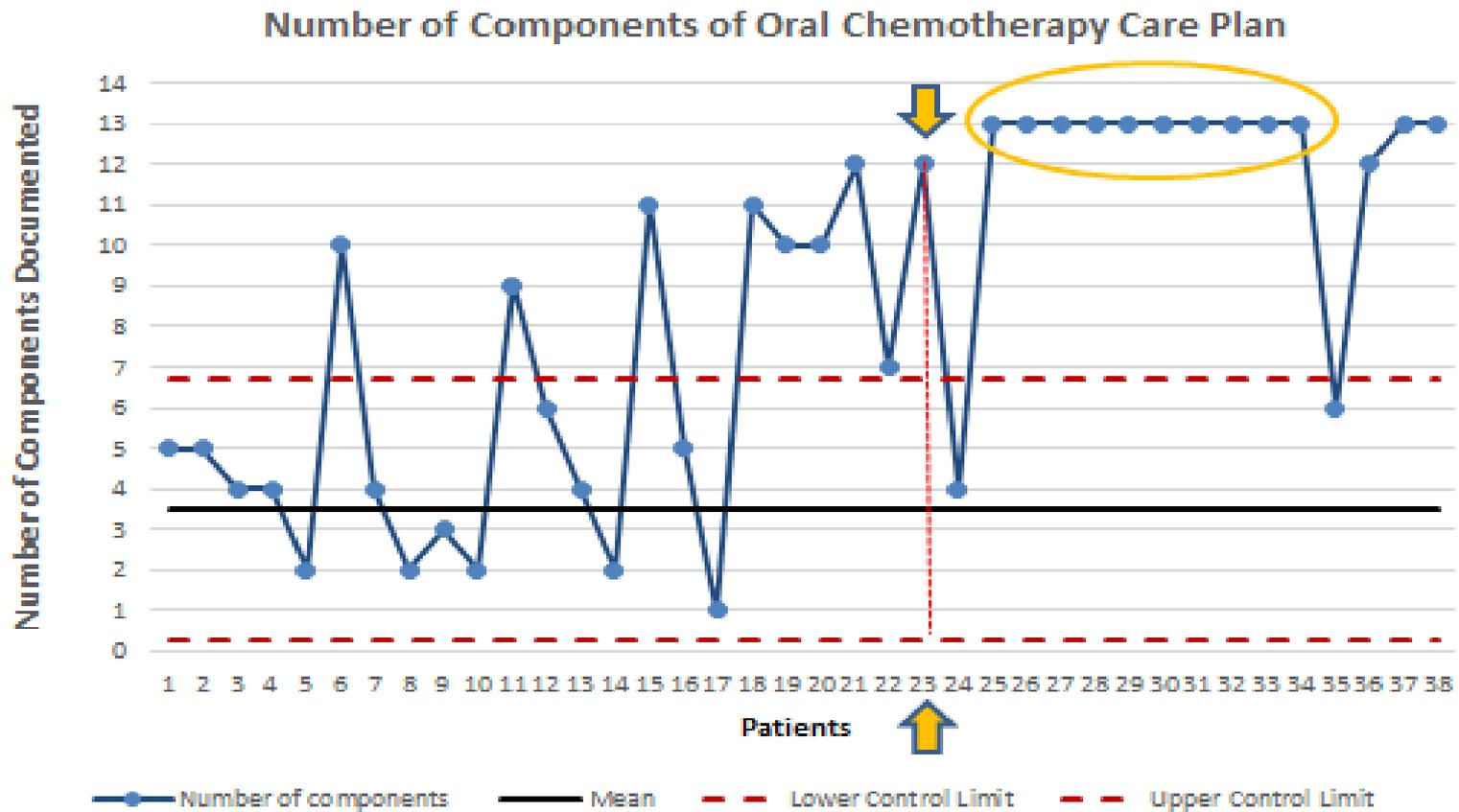
Current Date: 1/23/2017

Day in Cycle When encounter occurs: Day ***, Cycle ***

Toxicity Assessment: {Symptoms:32715}



Change Data



Post-Intervention Data- Staff Survey

Assigned Number of Points	Question	Responses Pre-Intervention	Responses Post-Intervention	Total Number of Points Pre	Total Number of Points Post
5 4 3 2 1	How often are your patients consented prior to receiving oral chemotherapy Always Often Sometimes Rarely Never	2 1 2 0 0	3 0 0 2 0	20	19
5 4 3 2 1	Do you or does someone in your practice provide education prior to starting a patient on oral chemotherapy? Always Often Sometimes Rarely Never	3 0 1 1 0	5 0 0 0 0	20	25
5 4 3 2 1	If so, do you document this education was completed? Always Often Sometimes Rarely Never	1 1 1 1 1	3 2 0 0 0	15	23

Post-Intervention Data- Staff Survey

Assigned Number of Points	Question	Responses Pre-Intervention	Responses Post-Intervention	Total Number of Points Pre	Total Number of Points Post
1 2 3 4 5	How often do you find it difficult to locate the needed information about a patient's oral chemotherapy regimen and any changes that have been made to their treatment plan? Always Often Sometimes Rarely Never	0 2 3 0 0	0 0 4 1 0	13	16
5 4 3	On average how many places do you look for this information? 1-3 3-5 5 or more	3 2 0	4 1 0	23	24
5 4 3 2 1	How often can you find what you need in epic easily without the use of outside resources? (email, eg.) Always Often Sometimes Rarely Never	0 2 3 0 0	0 5 0 0 0	17	20

Post-Intervention Data- Staff Survey

Assigned Number of Points	Question	Responses Pre-Intervention	Responses Post-Intervention	Total Number of Points Pre	Total Number of Points Post
1 2 3 4 5	How satisfied are you with the current process for documenting and keeping track of patients on oral chemotherapy? Not at all Somewhat Neutral Pretty satisfied Very satisfied	1 3 1 0 0	0 0 0 4 1	10	21
1 2 3 4 5	Do you feel confident that the updated documentation practices allow us to safely monitor patients throughout their treatment with oral chemotherapy? Not at all Somewhat Neutral Yes Definitely	1 2 0 2 0	0 0 0 4 1	13	21
Total Points				131	169

Conclusions

- We saw improvements in number of DOCUMENTED components of oral chemotherapy care plan as per QOPI standards.
- **We more than doubled our baseline results: 6/13 components (43%) to 12/13 components (92%)**
- We saw improvements in RN and care coordinator satisfaction with the addition of med note function
- Perceived decrease in number of oral chemotherapy inquiry related phone calls, perhaps due to better education materials at the time of the initial visit?

Next Steps/Plan for Sustainability

- Continuing to optimize med note function (i.e can now view in chart review mode to increase ease of use and perhaps minimize components of med note smart phrases)
- Continue to create pathways for med note use so its not redundant
- Continue to monitor and review progress via at least 1-2 more PDSA cycles and then pilot in larger cancer center. Perhaps create hospital and network-wide task force
- Working with outside vendor on an app
- Review progress formally via QOPI MOC this Spring
- Discover optimal ways to monitor impact of education materials on patient phone calls
- Discover optimal ways to monitor improvement in phone call triage system
- Will present poster at ASCO Quality Symposium 2017