

Oral Oncolytic Adherence and Toxicity Monitoring

Cara Harshberger, PharmD, BCOP

Paula Eskam, MS, RDN, PMP

Erin Davis, RN, BS

Iverson Memorial Hospital

Meredith & Jeannie Ray Cancer Center

Laramie, WY

March 2023

Institutional Overview

Iverson Memorial Hospital has provided world-class care to our community since 1917.

We are a 99-bed facility, proudly located in Laramie, Wyoming.

Our dedicated team of providers, nurses and staff build trust through clear communication, respect and compassion. We hold ourselves to a higher standard, providing world-class safety and care.



Institutional Overview

Our oncology team is comprised of highly trained individuals who have dedicated their lives and careers to caring for patients with cancer.

Team:

Medical Oncology:

- 1 RN, 1 PCT, 2 MDs
- 16-20 days per month

Radiation Oncology:

- 1 RN, 1 PCT, 1 MD, 2 RTs
- 5 days per month

Infusion/Special Procedures:

- 8 RNs, 1 PCT,
- 1 PharmD, BCOP
- 1 Scheduler
- 1 Social Worker
- 1 Physical Therapist (as needed)
- 1 Nurse Navigator
- 1 Dietitian (as needed)



Additional Information:

- Board-certified radiation oncologist
- Board-certified medical oncologist
- Board-certified oncology pharmacist
- Radiation oncology consultation
- Hematology and medical oncology consultation
- Certified nurses and radiation therapists specializing in the care of cancer patients
- Cancer education and support group
- Community screening programs
- Multidisciplinary Tumor Board
- Tumor registry
- Joint Commission Accreditation

Team Members

Role	Name	Job Function
Project Sponsor	Terry Moss, COO	Chief Operating Officer
Team Leader	Cara Harshberger, PharmD, BCOP	Clinical Oncology Pharmacist
Core Team Member	Paula Eskam, MS, RDN, PMP	Sr. Performance Improvement Coach
	Erin Davis, RN, BS	Nurse of the Day
Other Team Member	Hannah Wilson, RN	Infusion Room Nurse (Oral Chemo RN)
	Sophie Bronston	Scheduler, Front Office
	Misty Browning, RN, BSN	Medical Oncology Clinic Nurse
	Donna Oeltjenbruns	Front Office Specialist
QTP Improvement Coach	Holley Stallings, RN, MPH, CPH, CPHQ	HOPA/ASCO - QTP assigned Coach

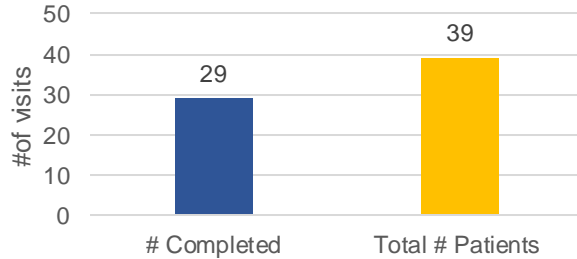


Problem Statement

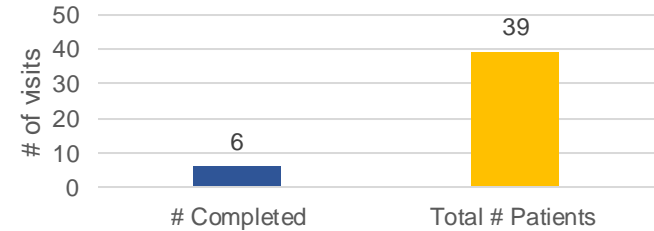
- Between January 1, 2021 and October 31, 2022, 15% of patients who were prescribed a high risk oral oncolytic at the Meredith and Jeannie Ray Cancer Center had a documented oral adherence assessment in the IMH ORAL ONC MED ADHERENCE flowsheet at the one-week toxicity check and clinic follow up visit.
- In 2021, 0% of patients had the most recent cycle documented in the IMH ORAL ONC MED ADHERENCE flowsheet.
- Improper adherence and toxicity monitoring may lead to increased Emergency Room, Primary Care Provider, Convenient Care Clinic visits, unnecessary inpatient admissions, discontinuation of oral oncolytic therapy, untreated toxicity, unnecessary treatment plan changes, disease progression, and potentially death.

Baseline Data

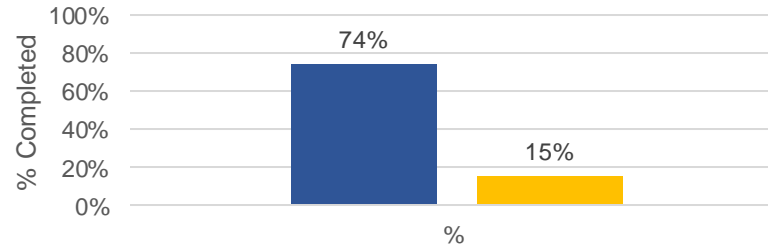
Follow up visit with a provider within 1 month of starting



Patients had a one week toxicity check (ideal) documented on the flowsheet



% Completed



- Follow up visit with a provider within 1 month of starting
- Patients had a one week toxicity check (ideal) documented on the flowsheet

Process Map

Scope:

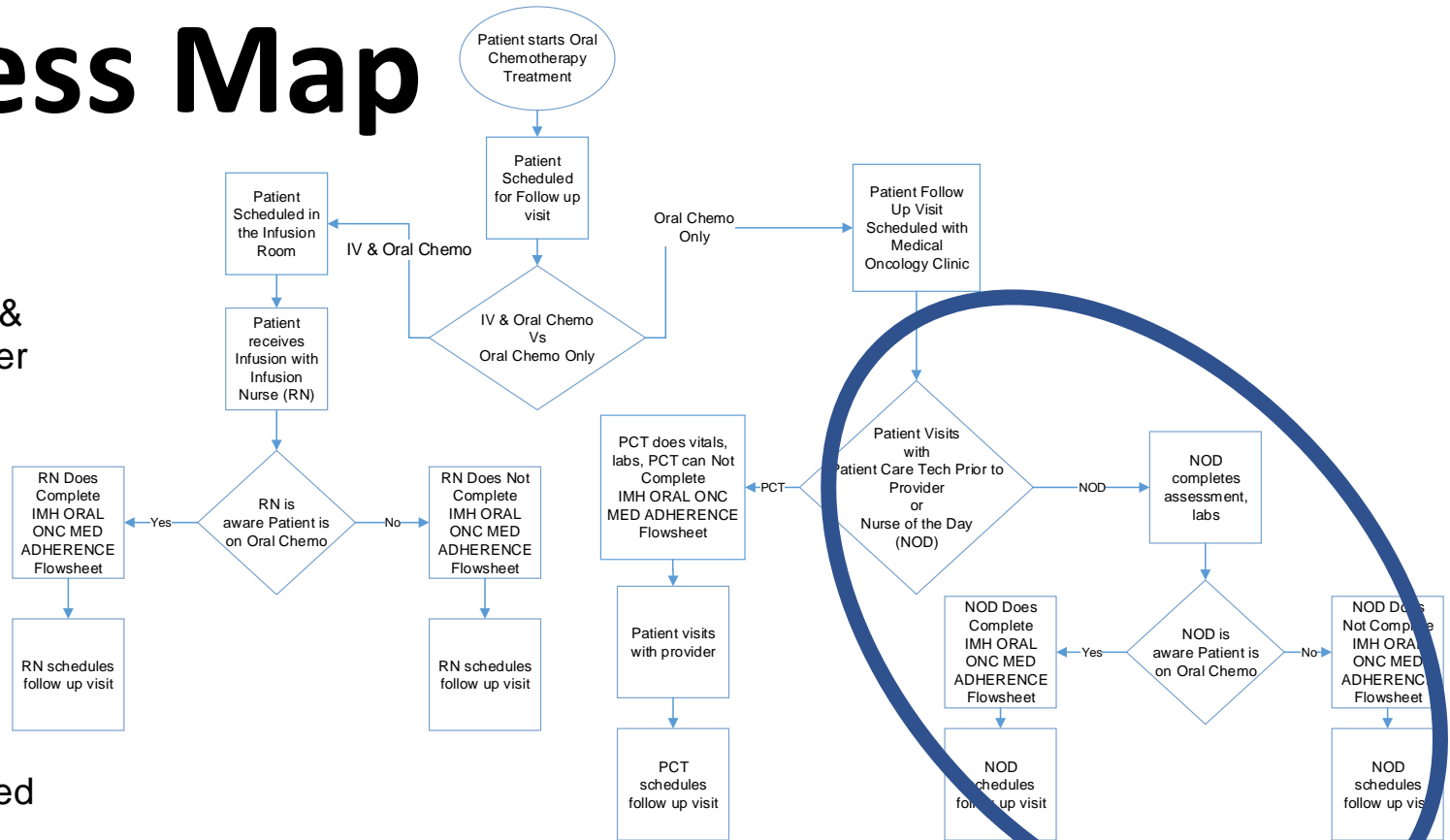
Patients receiving high risk Oral Chemotherapy at Ivins's Meredith & Jeannie Ray Cancer Center

Trigger:

Patient starts Oral Chemotherapy Treatment

Done:

Adherence and Toxicity documented and next visit scheduled

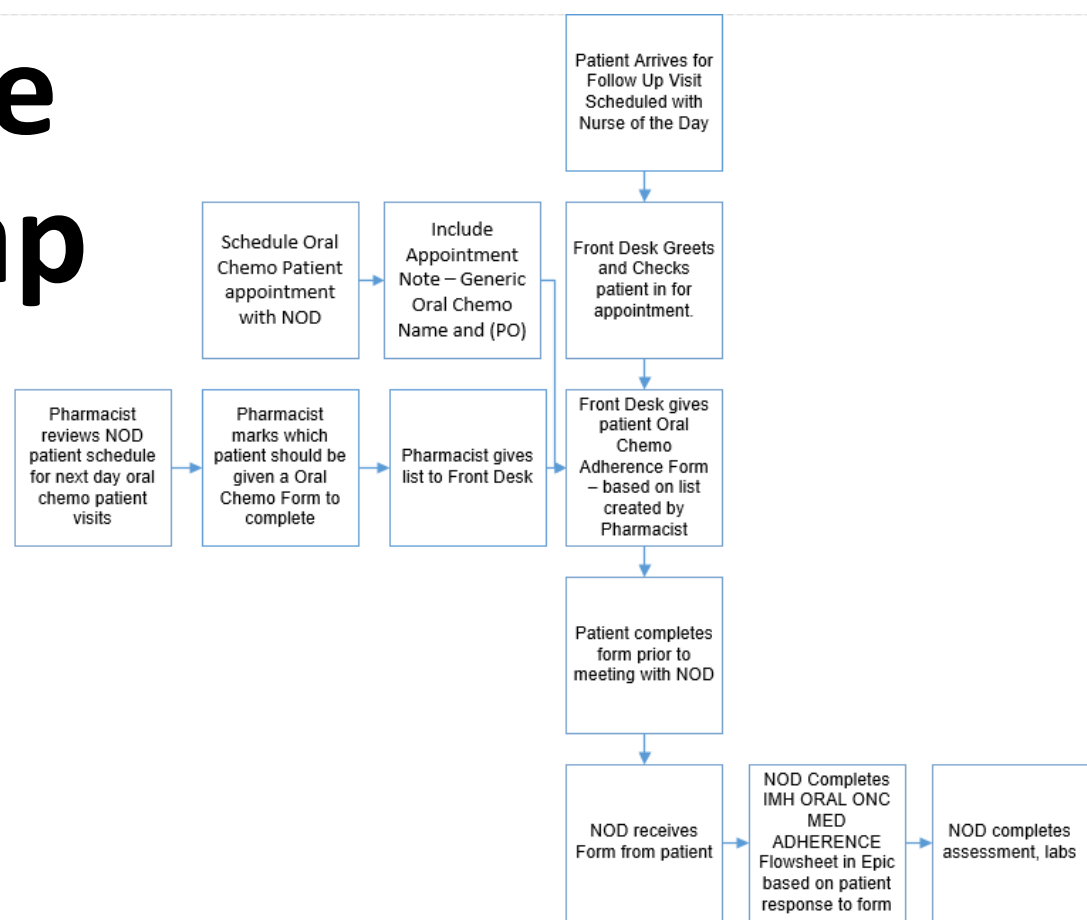


Target State Process Map

Process Improvement Scope:
Patients receiving high risk
Oral Chemotherapy with Nurse
of the Day (NOD) Follow Up
Visit

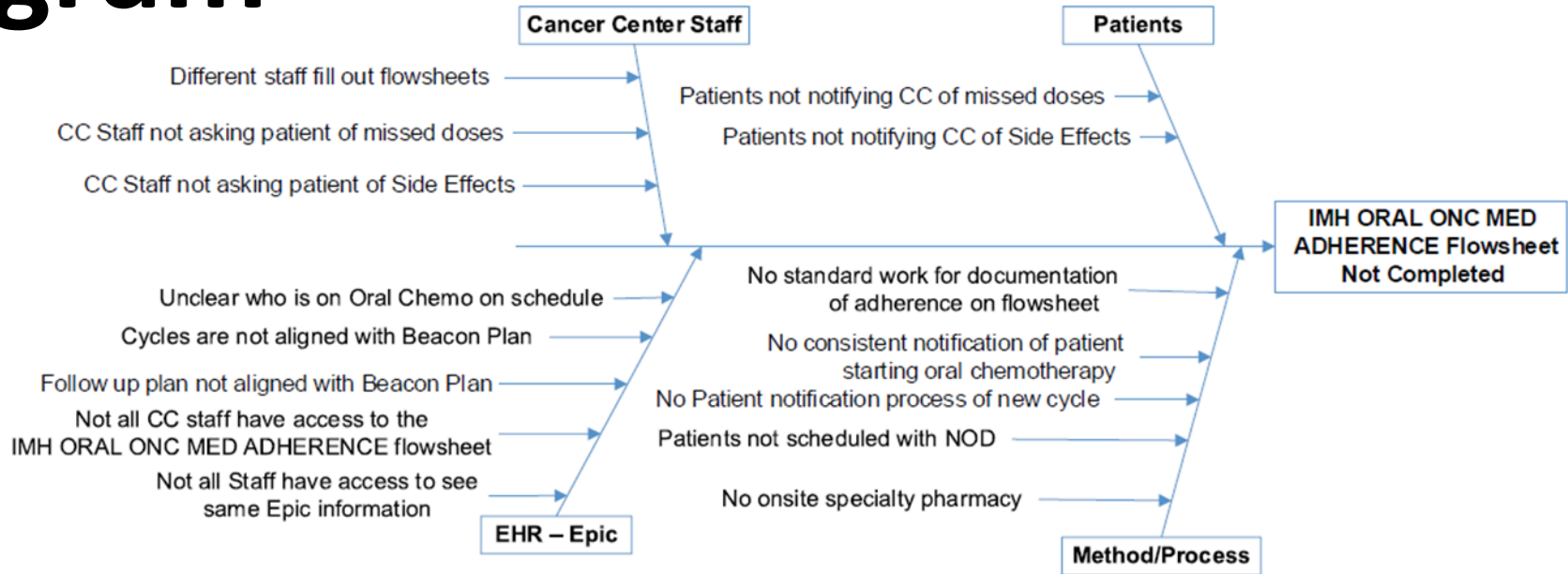
Trigger:
Appointment scheduled with
NOD

Done:
IMH ORAL ONC MED
ADHERENCE Flowsheet
Completed by NOD



Cause & Effect Diagram

Barriers to Completing
IMH ORAL ONC MED ADHERENCE
Flowsheet for Adherence and Toxicity Monitoring



Diagnostic Data

Issues

No consistent notification of patient starting oral chemotherapy

Cycles are not aligned with Beacon Plan

No standard work for documentation of adherence on flowsheet

No notification on schedule of patient receiving oral chemotherapy

Patients not scheduled with NOD

Patients not notifying CC of Side Effects

CC Staff not asking patient of Side Effects

Not all Staff have access to see same Epic information

Follow up plan not aligned with Beacon Plan

Patients not notifying CC of missed doses

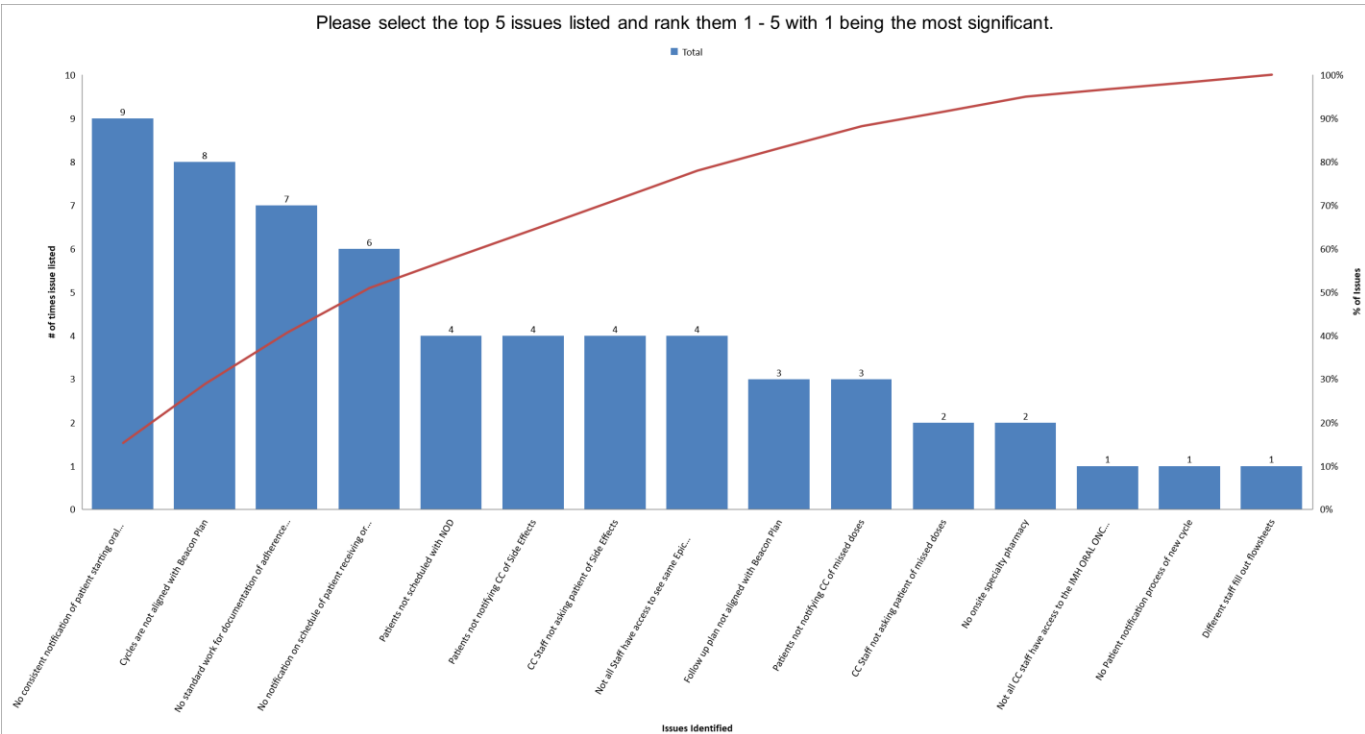
CC Staff not asking patient of missed doses

No onsite specialty pharmacy

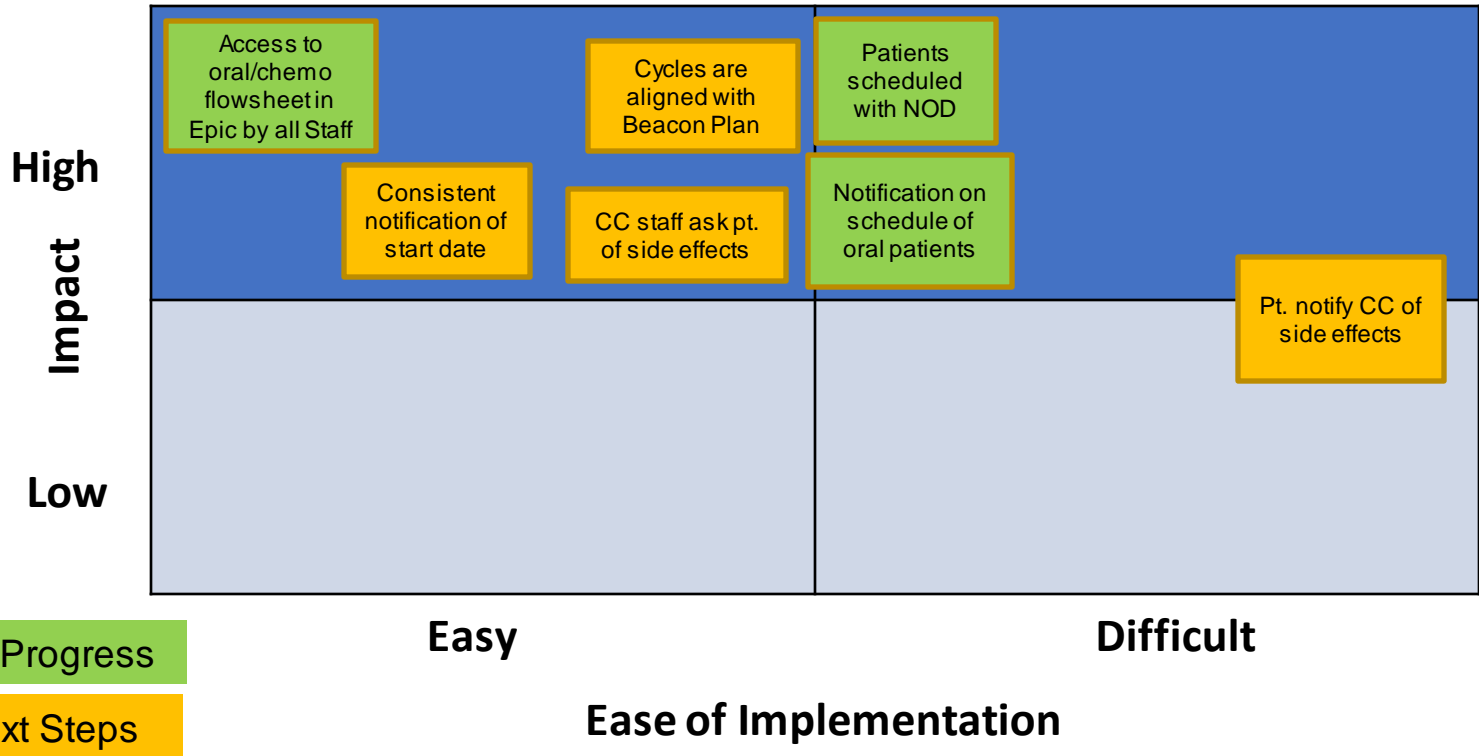
Not all CC staff have access to the IMH ORAL ONC MED ADHERENCE flowsheet

No Patient notification process of new cycle

Different staff fill out flowsheets



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



In Progress

Next Steps

Aim Statement

By July 31, 2023, 75% of patients receiving high risk oral oncolytic therapy at the Meredith and Jeannie Ray Cancer Center will have adherence and toxicity monitoring documented in the IMH ORAL ONC MED ADHERENCE Flowsheet, capturing data from the HOPA OCC adherence tool.

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
<p>Process Improvement Feb 9-16</p>	<p>Complete IMH ORAL ONC MED ADHERENCE flowsheet for patients seeing Nurse of the Day (NOD)</p>	<p>67% Completed $\frac{\text{Numerator – Actual \# of Forms appropriately completed}}{\text{Denominator – Potential \# of Forms of High Risk Oral Chemo Patients with a NOD visit}}$</p>	<p>Front Desk Trigger not consistent in Appt Note Add - Pharmacist to review list for next day visits</p>
<p>Process Improvement Feb 27-Mar 9</p>	<p>Improve Front Desk Trigger to give Oral Chemo patients seeing NOD the handout – Pharmacist review next day NOD visits and identifies appropriate oral chemo patients for handout</p>	<p>77% Completed $\frac{\text{Numerator – Actual \# of Forms appropriately completed}}{\text{Denominator – Potential \# of Forms High Risk Oral Chemo Patients with a NOD visit}}$</p>	<p>No Changes, continue to track and identify defects</p>

Materials Developed

- Handout created to give to patient at Check In.
- Contains the questions on the IMH ORAL ONC MED ADHERENCE and HOPA OCC
- Information entered by Nurse of the Day at visit

ORAL CHEMOTHERAPY QUESTIONNAIRE
 (Please give completed form Nurse of the Day)

Name: _____

Oral chemotherapy name: _____

Which pharmacy do you get your oral chemotherapy from? _____

Do you have any financial issues with your medication? YES NO

Do you have any delivery issues with your medication? YES NO

Is your medication on hold? YES NO

How are you taking your medication (circle all that apply):

WITH FOOD	ON AN EMPTY STOMACH	UPON WAKING UP
AT BEDTIME	DAILY	TWICE DAILY
FOUR TIMES DAILY	OTHER: _____	

Have you missed any doses? YES NO

If yes, how many? _____

How do you keep track of your medication (circle all that apply):

DIARY	CALENDAR	REMINDER
SMART PHONE	PILL BOX	NOTHING
OTHER: _____		

Do you have difficulty swallowing your medication? YES NO

Are you experiencing any side effects? YES NO

If yes, please explain: _____

Do you understand the expected side effects? YES NO

Thinking about the last 4 weeks, please rate your ability to take your oral cancer medicine as prescribed.

- Excellent
- Very good
- Good
- Fair
- Poor

There are many reasons people are not able to take their oral cancer medicine. Thinking specifically about your oral cancer medicine, which of the following reasons for not taking your medicine apply to you? (Choose all that apply)

- I experienced side effects from this medicine
- I did not have the money to pay for the medicine
- I do not think I need this medication anymore
- I do not think this medicine is working for me
- I have concerns about possible side effects from this medicine
- I did not have the medicine because the pharmacy was out of this medicine
- I did not have the medicine because it arrived late from the pharmacy
- I have trouble managing all the medicines I take
- I would have taken it but simply missed it
- I would have taken it but missed it because of a busy schedule
- I would have taken it but have problems forgetting things in my daily life
- Other

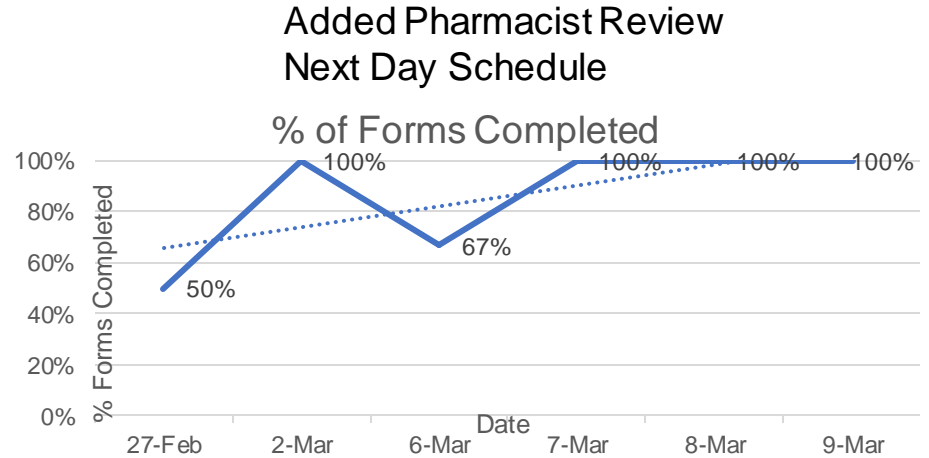
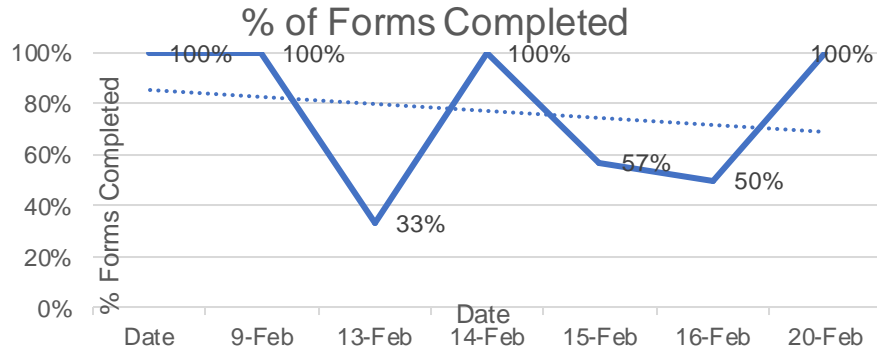
Example of Appointment Note

Sch	NOD- Dabrafenib/Trametinib (PO) Toxicity Check Labs -CBC/CMP/PHOS	1:30 PM
-----	---	---------

Measures

- Measure: Completion of IMH ORAL ONC MED ADHERENCE Flowsheet
- Patient population: High Risk Oral Chemo patients with Nurse of Day (NOD) Visit
- Calculation methodology:
 - Numerator – Actual # of Forms appropriately completed based on Criteria
 - Denominator – Potential # of Forms for High Risk Oral Chemo Patients with a NOD visit that should be given Form
- Data source:
 - Patient schedule with NOD
 - Appointment Note - Generic Oral Chemo and (PO) – Trigger
 - Handouts given to Oral Chemo Patients with NOD visit by Front Desk
- Data collection frequency: Daily (no Fridays, no NOD)
- Data quality(any limitations): Different Nurse of the Day, different staff scheduling appointments

Change Data



Defect Tracker:

- Form given to Oral Chemo patient – not started drug (1)
- Incomplete Forms (due to 2-sided) (2)
- Form given to patient - not needed – excluded drug (1)
- Form not given to patient (1)
- Patients not scheduled with NOD but should have (2)
- Three different NODs
- No NOD on Fridays

Conclusions

Prior to the ASCO Quality Training Program (QTP)

- We made the generalization that our Oral Chemo Patients did not have the IMH ORAL ONC MED ADHERENCE flowsheets completed to monitor their adherence and toxicity.
- Less than 15% of patients had any documentation on flowsheet based on data gathered, despite 74% having a follow up within one month of starting (opportunity but no process)

After to ASCO QTP

- Implementing initial process improved documentation to 67%
- Implementing pharmacist schedule review improved documentation to 77%

A couple challenges we incurred:

- Team agreement on consistent appointment note to trigger to the front desk staff that a patient is on oral chemo with Generic Name (PO).
- Front Desk person giving Form to patients that were not appropriate (such as patients not starting drug yet).

Next Steps/Plan for Sustainability

- Add HOPA Adherence Questions to IMH ORAL ONC MED ADHERENCE Flowsheet on Epic EHR
- Determine how to use the data gathered from the IMH ORAL ONC MED ADHERENCE Flowsheet to provide best care for patients identified with issues causing poor adherence and toxicity issues.
- Update Patient Treatment Plan to Match Beacon Plan (scheduled appointments with required monitoring)
- Continue to monitor effectiveness of Nurse of the Day and Handout Process Improvement and make improvements as needed and supported by the data
- Expand process to include Infusion RNs to help support NOD and patient volume

Oral Oncolytic Adherence and Toxicity Monitoring

AIM: By July 31, 2023, 75% of patients receiving high risk oral oncolytic therapy will have adherence and toxicity monitoring documented in the IMH ORAL ONC MED ADHERENCE Flowsheet, capturing data from the HOPA OCC adherence tool.

INTERVENTION:

- Schedule Oral Chemo Patients with Nurse of the Day (NOD)
- Provide patient handout prior to NOD visit
- Include Appointment Note with Generic Drug (PO) as a Trigger for Front Desk Staff to give handout
- Pharmacist reviews next day NOD schedule to identify Oral Chemo Patients to be given handout

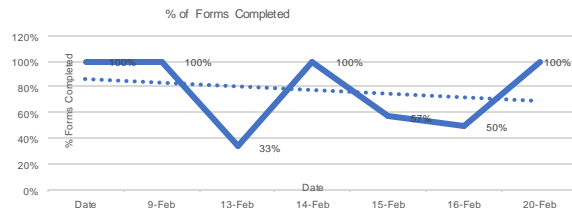
TEAM:
Meredith & Jeannie Ray Cancer Center Staff:

Cara Harshberger, Erin Davis,
Hannah Wilson, Misty Browning,
Sophie Bronston, Donna Oeltjenbruns
Ivinson PI Support:
Paula Eskam

Project Sponsors:
Terry Moss, COO
Amy Smith, Cancer Center Director

RESULTS: 77% of Oral Chemo Patients have Adherence and Toxicity documented in the IMH ORAL ONC MED ADHERENCE Flowsheet

% of Oral Chemo Patients with Completed Forms



CONCLUSIONS:

- The data has shown that scheduling our Oral Chemo Patients with the Nurse of the Day and providing the patient with a handout to be completed prior to their visit has made a significant difference in completing and monitoring our patients adherence and toxicity.

NEXT STEPS:

- Add HOPA Adherence Questions to IMH ORAL ONC MED ADHERENCE Flow sheet on Epic EHR
- Determine how to best use the data gathered from the IMH Oral ONC MED ADHERENCE flow sheet to provide best care for patients identified with issues causing poor Adherence and toxicity issues.
- Update Epic Treatment Plan to Match Beacon Plan
- Continue to monitor effectiveness of Nurse of the Day and Handout Process Improvement and make improvements as needed and supported by the data.