# ASCO's Quality Training Program

Project Title: Oral Capecitabine Documentation in the Electronic Medical Record Flow sheet

Presenters:
Jason Brown M.D.
Calvin Han M.D.
Betsy Brown RN, BSN, OCN, CRNI

Institution: Yolanda G. Barco Oncology Institute

Date: March 6, 2014



ASCO® QUALITY TRAINING PROGRAM™

# Institutional Overview

- Yolanda G. Barco Oncology Institute (YGBOI)of Meadville Medical Center (MMC) is a hospital based community cancer center operating as a department of an independent rural community hospital in Western Pennsylvania servicing approximately 225,000 individuals in Northwestern Pennsylvania.
- The providers at the facility include four Medical Hematologists/Oncologists, one Radiation Oncologist, one Physician Assistant, Pharmacy, ONS certified Nursing, and support staff.

# Problem Statement

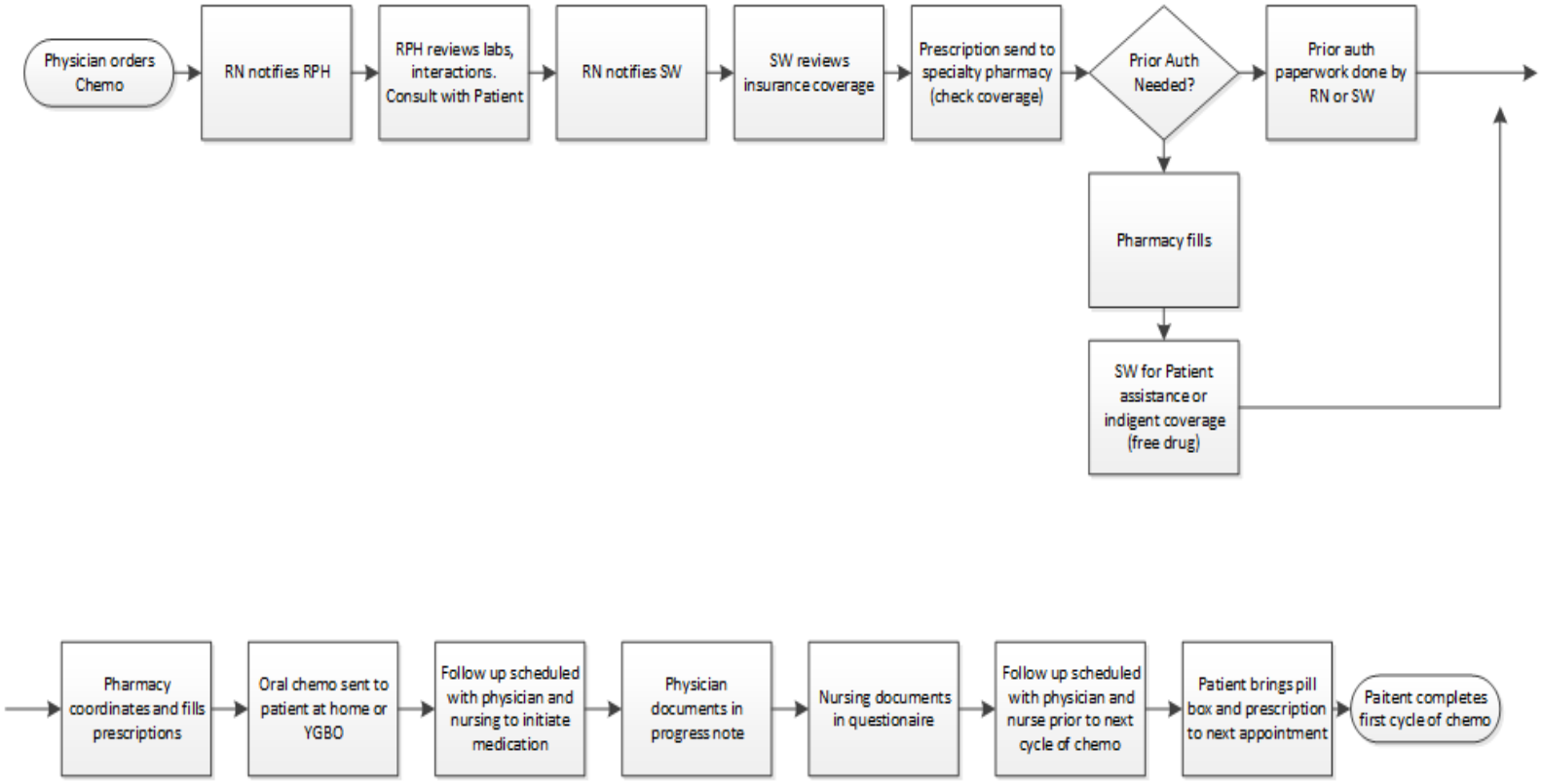
Patients at Yolanda G. Barco Oncology Institute (YGBOI) are often prescribed oral anti-neoplastic agents such as Capecitabine (Xeloda®). There is no standardized documentation of the dose prescribed, dosage adjustments, or dose administered per cycle (dose intensity) in the current EMR flow sheet making tracking of chemotherapy toxicities, dose intensities, and therapy adjustments time consuming, cumbersome, and potentially dangerous to patients.

# Team Members

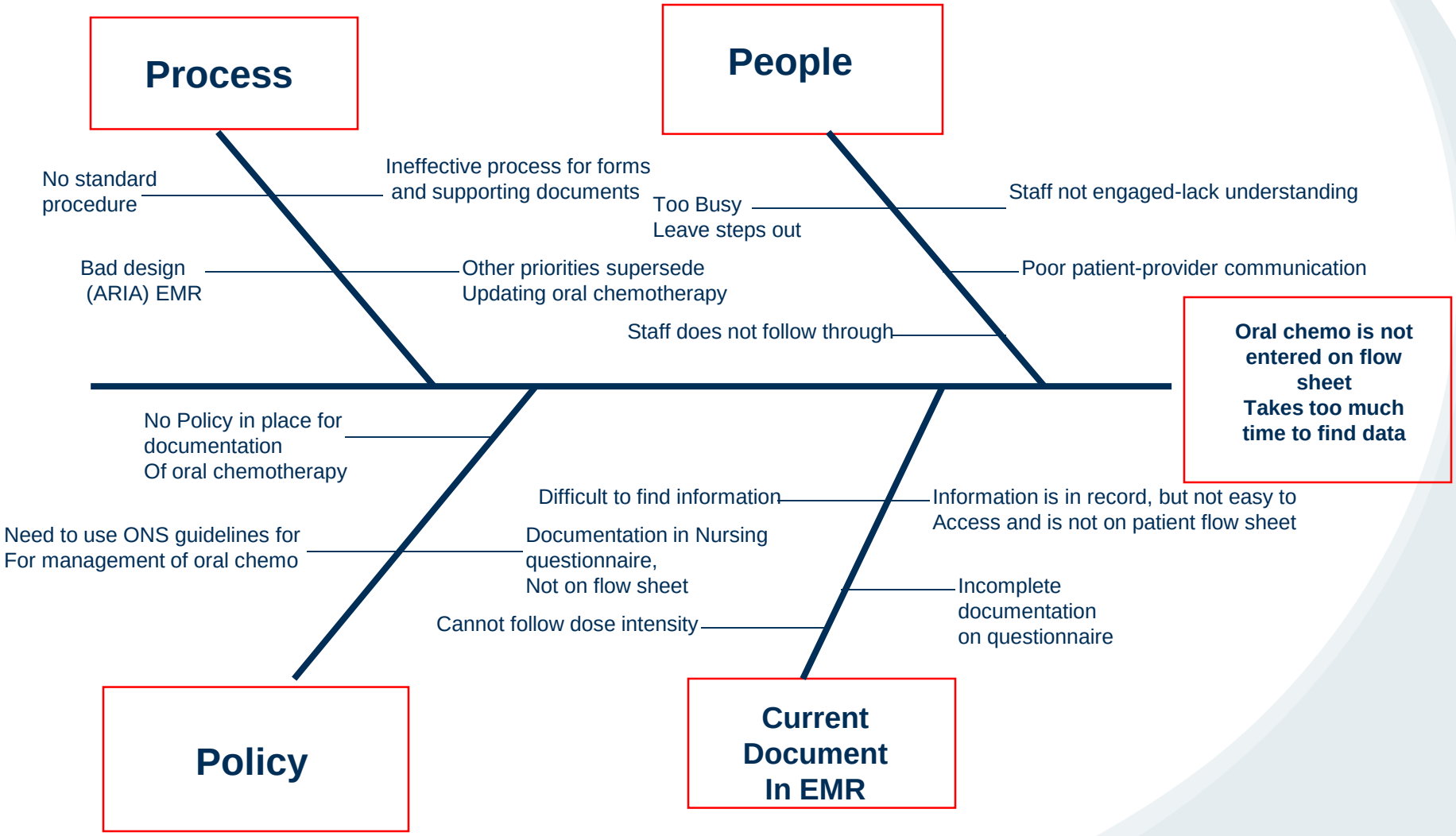
- *Project Sponsor*
- Valerie Bond Waid MBA, BSN, FACHE - VP Clinical Operations - Meadville Medical Center (Director of YGBOI)
- *Team Leader*
- Jason Brown, MD  YGBOI - Medical Director
- *Core Team Member*
- Calvin Han, MD  YGBOI - Director of Education
- *Core Team Member*
- Betsy Brown, RN, BSN, OCN, CRNI  YGBOI - Medical Oncology Dept Manager
- *Facilitator*
- Jason Brown, MD
- *Other Team Members*
- Dawnmel Grove, RN, OCN  Chemotherapy Nurse
- Susan Hering RN, OCN  Chemotherapy Nurse
- Leighanne Young, RPH  YGBOI-Pharmacist
- Stephanie Swanson, LPN  YGBOI-LPN- Triage Nurse for Dr. Brown
- Shelley Pence BSW  Social Worker
- *QTP Improvement Coach*
- Laurie Kaufman, MSN, RN

  Provides remote support to team for science of quality improvement & participation in the QTP.

# Process Map (Current)



# Cause & Effect Diagram



# Diagnostic Data

- **Report the percentage of patients prescribed Capecitabine documented in the EMR flow sheet at baseline and incrementally throughout the improvement project.**
- **Obtain Baseline data on time required by nursing to evaluate for prescribed dose, dose adjustments, dose delivered, and reported toxicities for ten patients on Capecitabine by current method of chart and progress note review.**

# Baseline Data

- There is NO documentation of oral chemo on flow sheet at Baseline (0/10)
- Documented **on** flow sheet 0% of time prior to project.
- 230 minutes for 10 patients averaging 23 minutes of nursing time per patient to determine prescribed regimen, dose intensity, and toxicities

# Aim Statement

By March 31, 2014, increase EMR flow sheet documentation of Capecitabine prescribed regimen, dosage adjustments, dose intensity, and toxicities to 90 % for adult patients currently on or starting Capecitabine therapy during the study period.

# Measures

- Measure (process):
  A. Minutes of time for nursing to document in EMR flow sheet prescribed dose, dose intensity and toxicities
- Measure (balance)
  - Nursing time (minutes) to determine Capecitabine prescribed dose, dose intensity, and toxicities via new and old documentation methodologies.

- Patient population:
  – Adult patients of YGBOI on Capecitabine oral chemotherapy

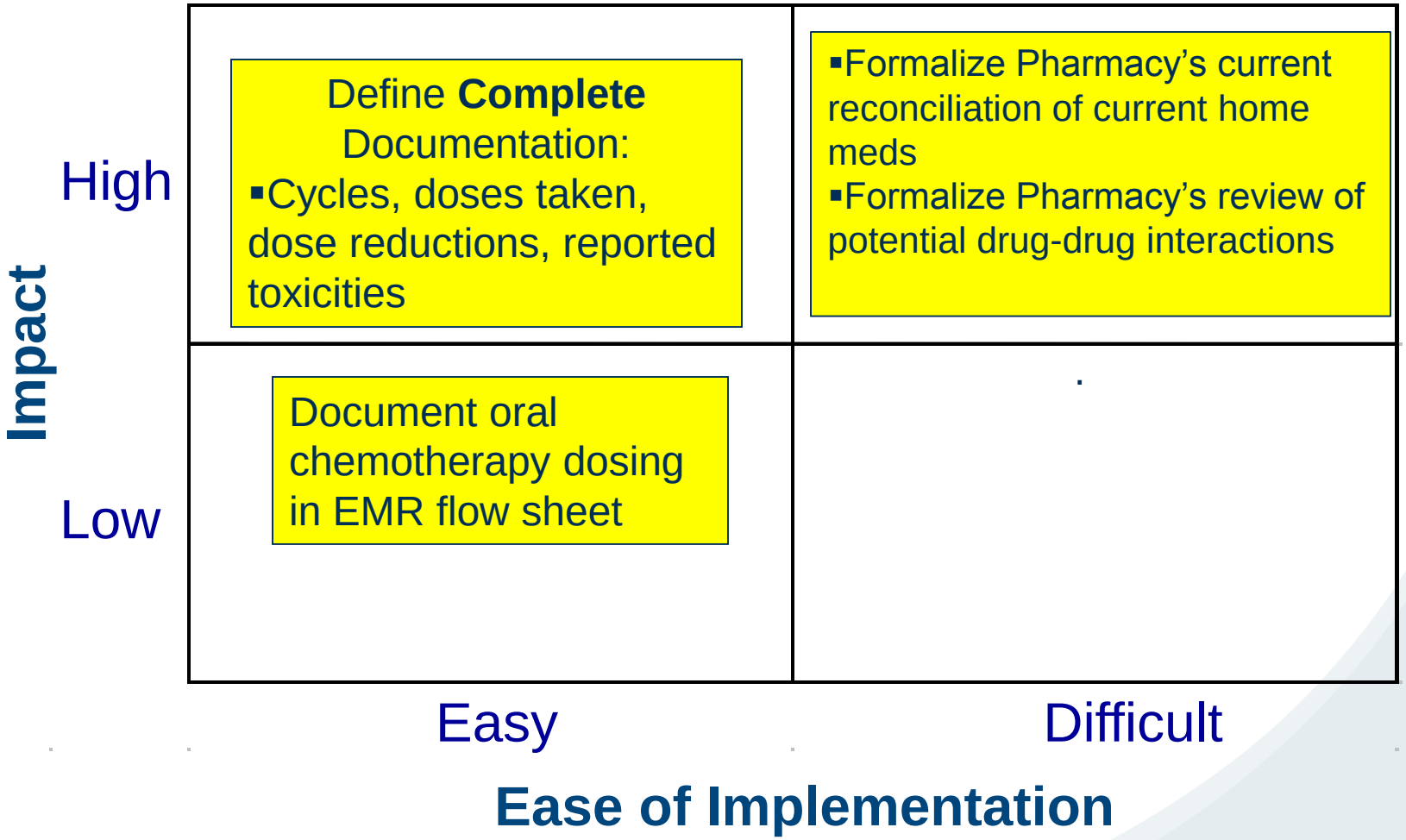
- Calculation methodology:
  - Reviewed 10 charts of active patients for July – December 2013, 230 minutes for 10 patients averaging 23 minutes per patient to determine prescribed regimen, dose intensity, and toxicities
  - Tracked percentage of patients with newly designed flow sheet documentation
  - Nursing tracked time required for documentation and review of charts.

- Data source: Reports (nursing documentation, physician progress notes, pharmacy documentation) in ARIA EMR, nursing recorded timesheets.

- Data collection frequency: Per Capecitabine cycle

- Data quality (any limitations): Manual entering of dose and prescription into EMR (if not entered--not traceable), Independent timesheet entry.

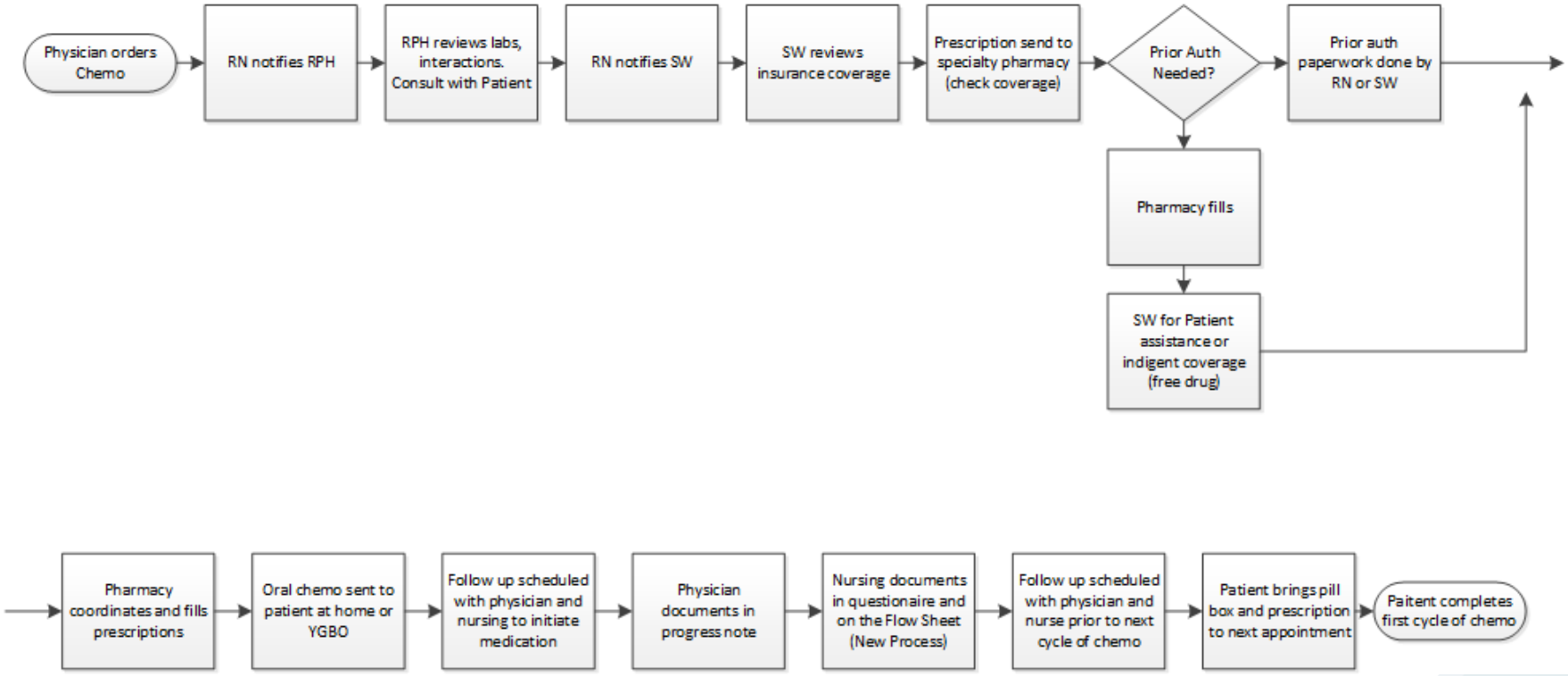
# Prioritized List of Changes (Priority/Pay-Off Matrix)



# PDSA Plan (Tests of Change)

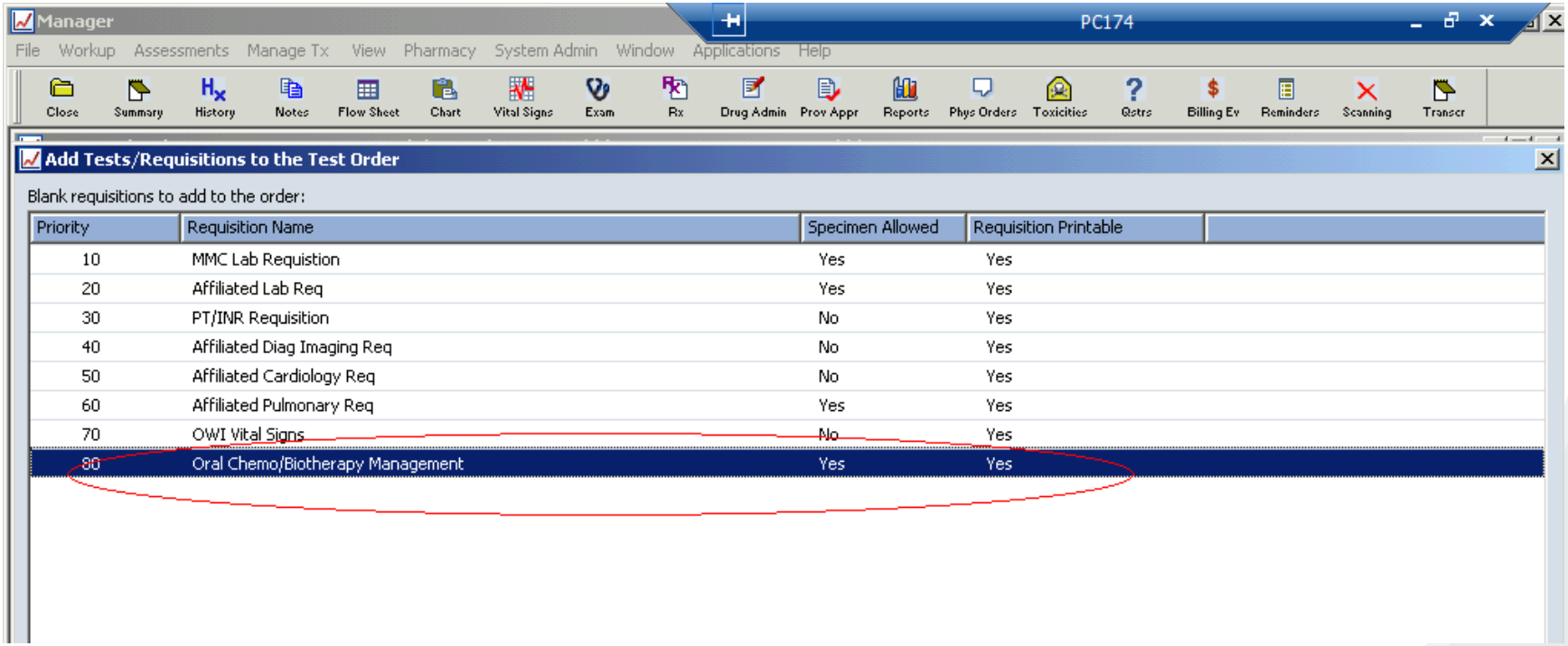
| Date of PDSA cycle | Description of intervention | Results | Action steps |
|---|---|---|---|
| 10/20/13-02/28/14 | Worked with Varian Software admin to research ways to document oral chemo on EMR flow sheet.<br>Devised new method-similar to method being used by other Varian Customers | Oral/Chemotherapy monitoring added as a requisition that nurses use to document regimen, dose admin and adjustment, toxicities.<br>Nurses begin new<br>Documentation process | Nurses have access to requisition and can document details of oral chemo to flow sheet to include cycles, doses taken and toxicities. |
| 12/15/13 – 12/30/14 | Meet with physicians to educate on how to see oral chemotherapy on flow sheet | Physician must click on the oral chemotherapy box in order to expand full details about dosing | Train physicians to locate and review data on flow sheet. |
| 01/15/2014-02/28/14 | Meet with Pharmacy, social work, medical assistants, LPN's, Radiation Nurses and support staff<br>In-Service inter-disciplines to view the flow sheet | Pharmacists, Social Workers, support staff will be able to locate information and details about oral chemo efficiently and with ease | In-Service inter-disciplines to view the flow sheet and to click to expand details. |

# Process Map (Future)



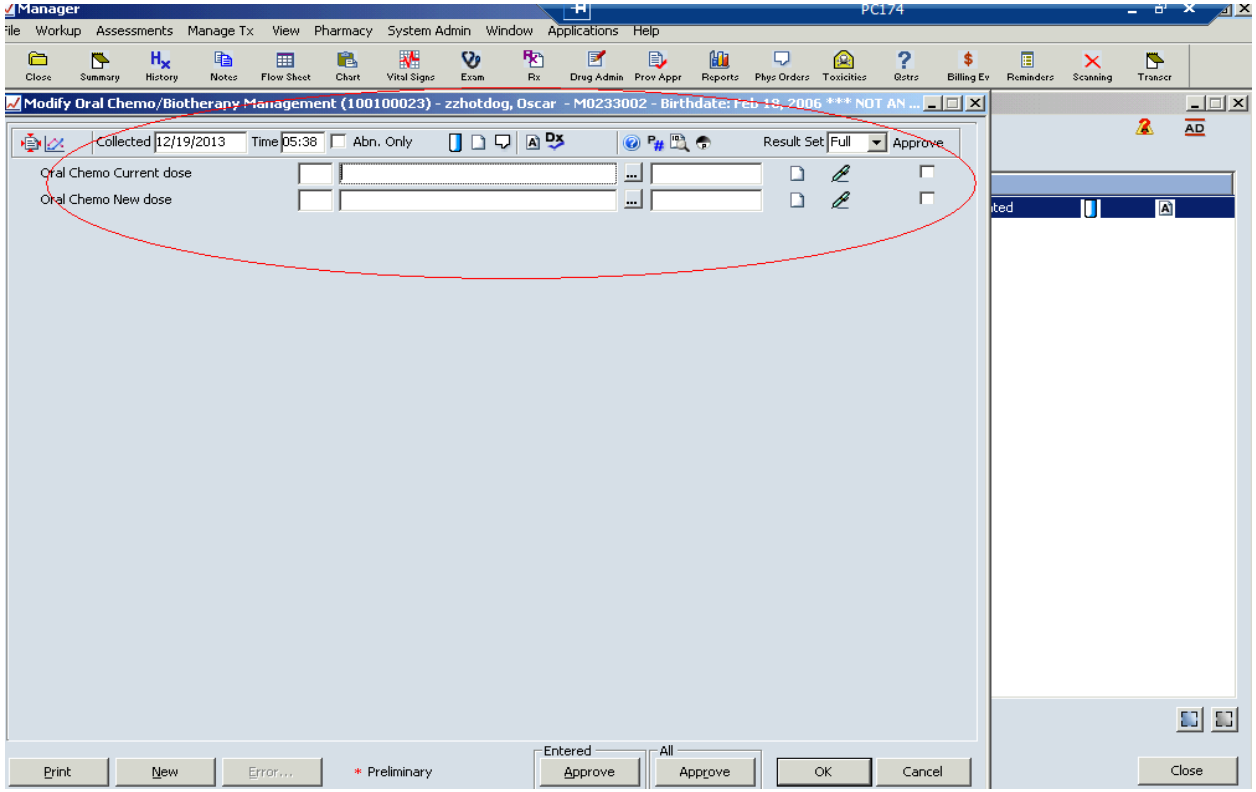
# Materials Developed

New process will allow nurses to enter oral chemo into patient flow sheet



# Materials Developed

Nurses will enter current dose and are able to make note of changes in dosage and toxicities in the space for new dose.

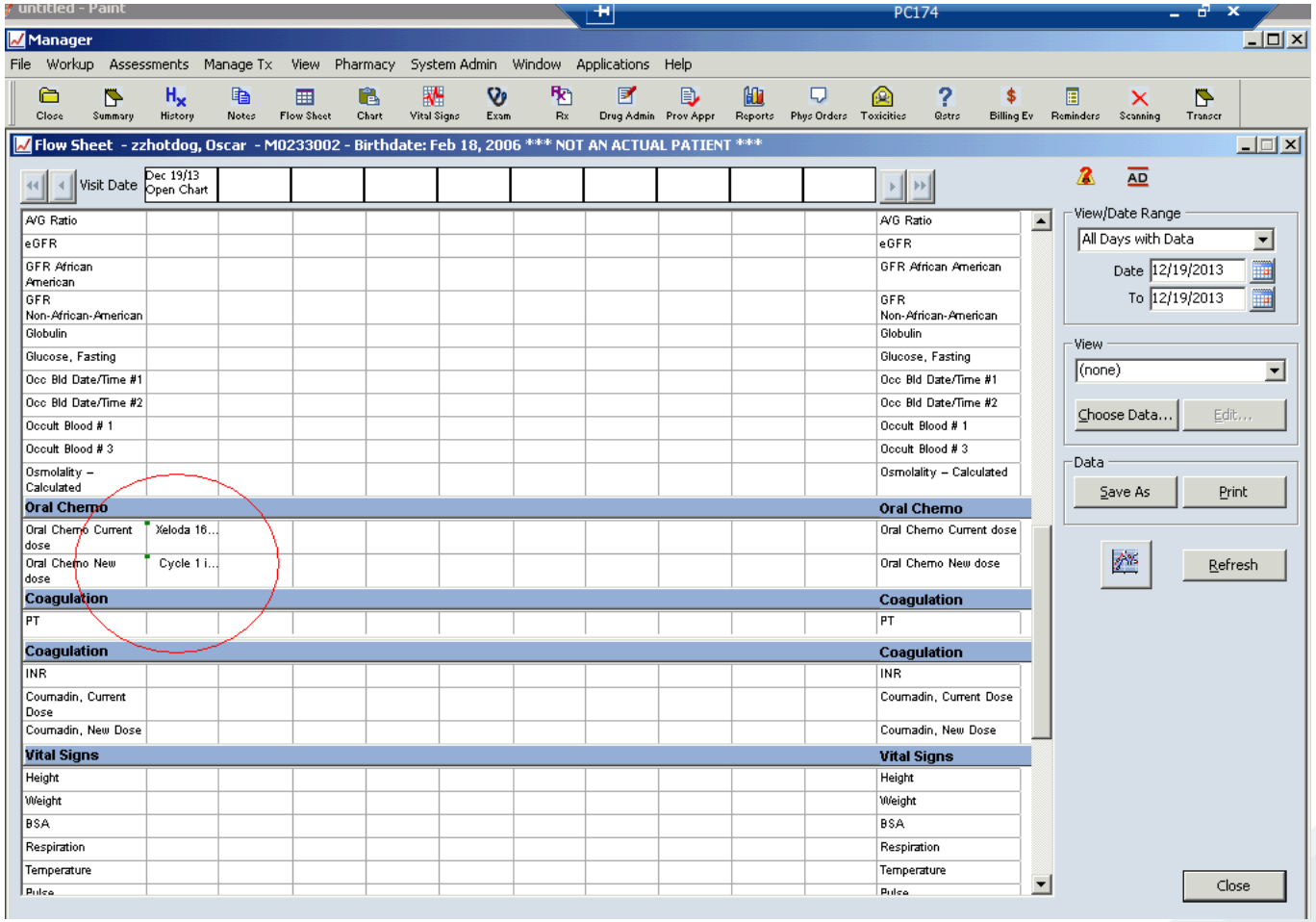





ASCO QUALITY TRAINING PROGRAM

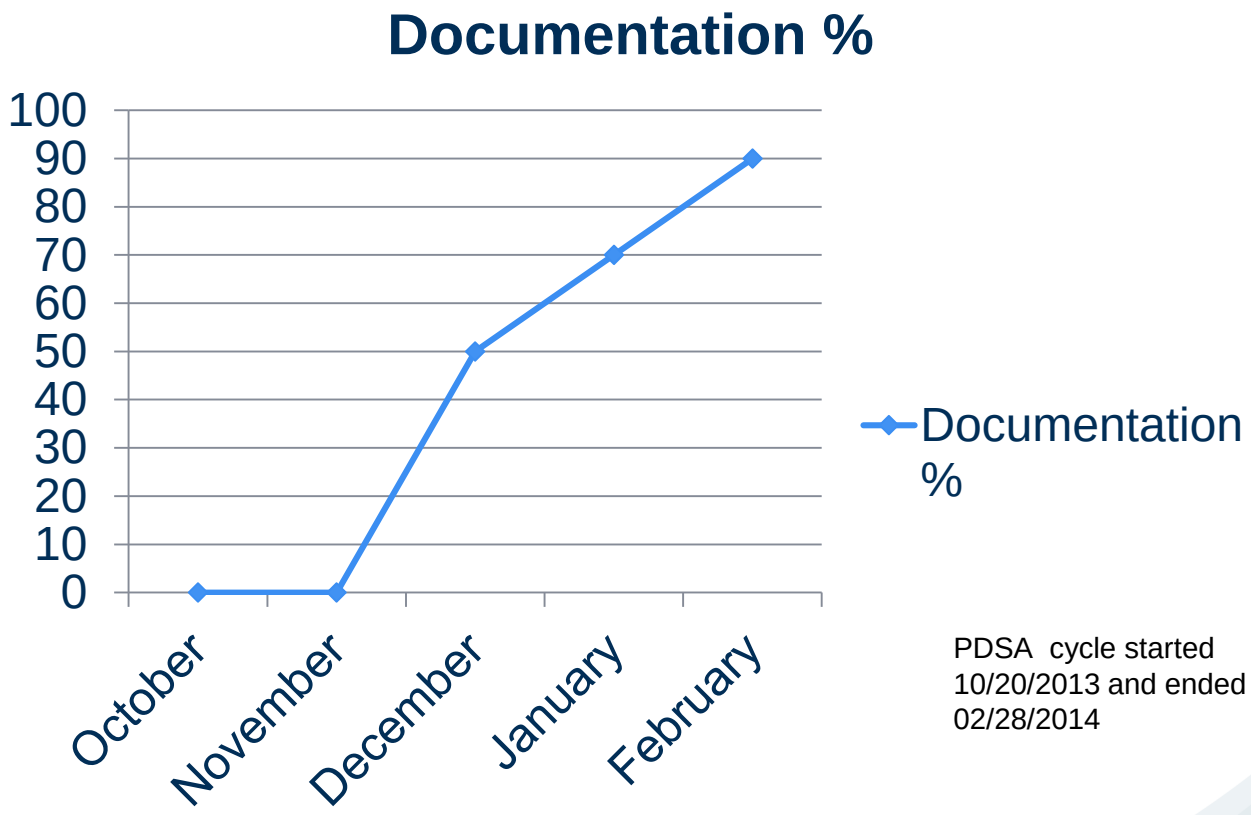
# Materials Developed

Cycles are tracked and documented on flow sheet. Right clicking on space where green dot is on the flow sheet offers complete detailed information – easy access for all of the Disciplines



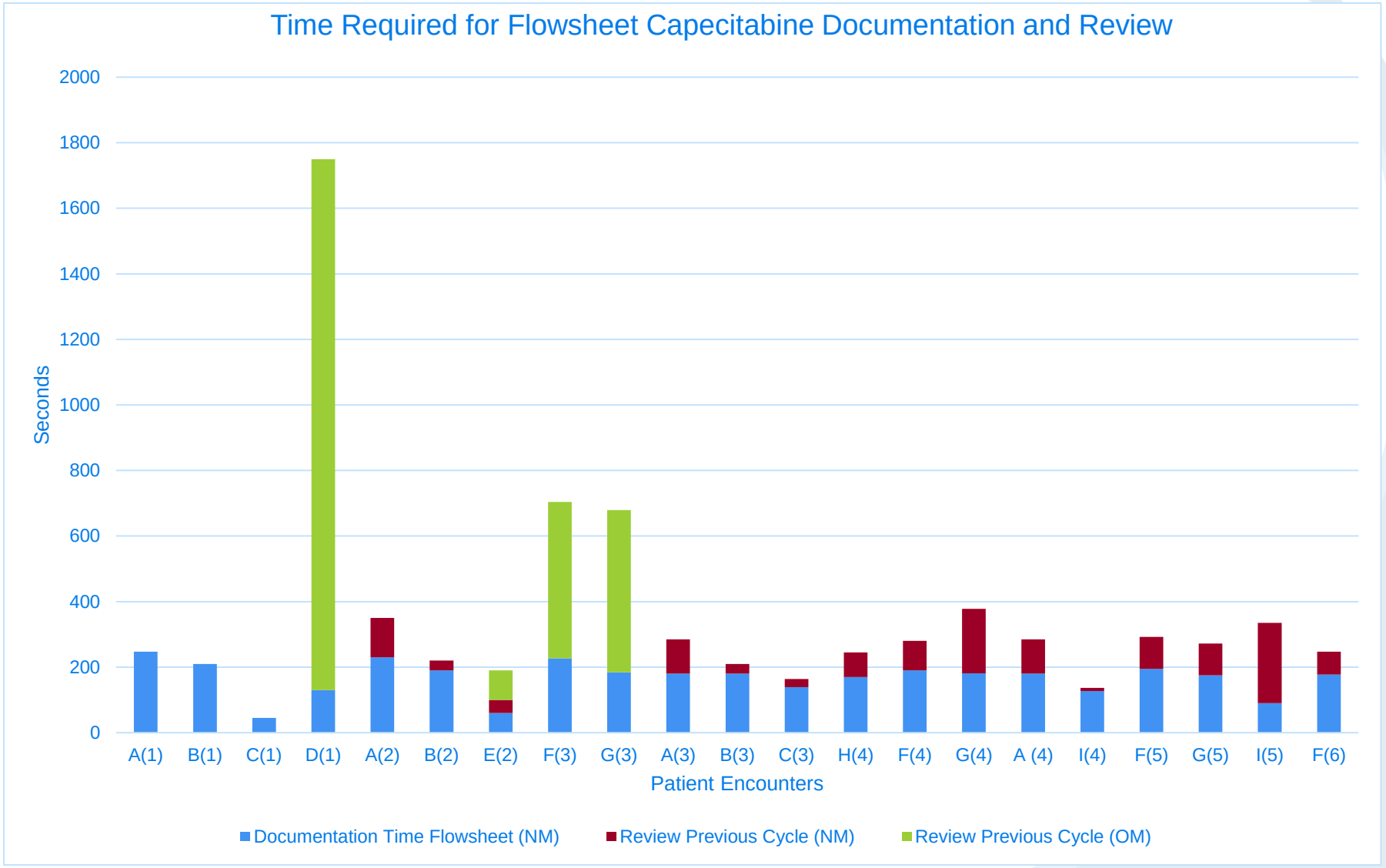
# Change Data

Time to research dose intensity and Percent of complete Documentation on Flow sheet in EMR

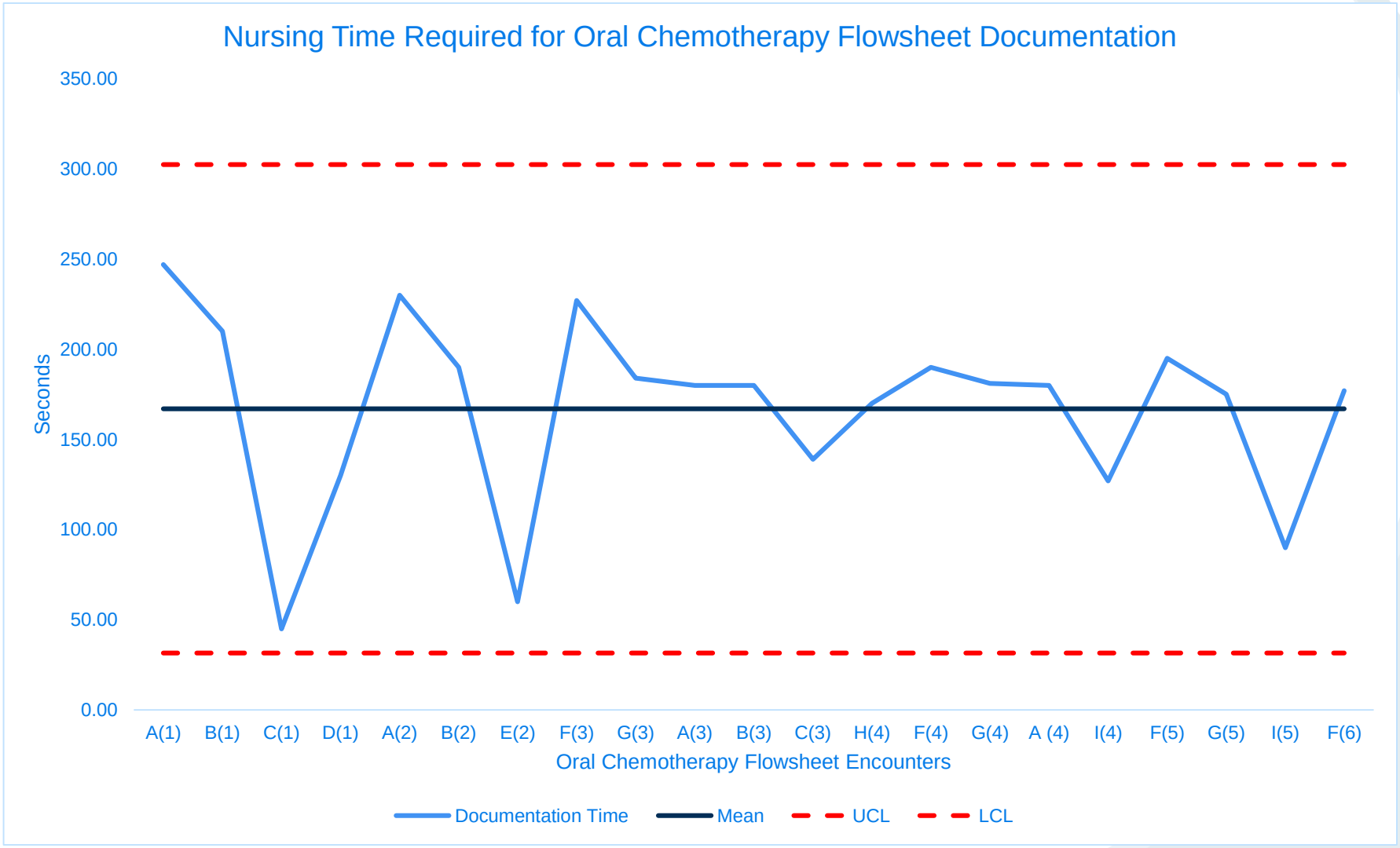



PDSA cycle started 10/20/2013 and ended 02/28/2014

# Time Required



# XmR Chart






ASCO® QUALITY TRAINING PROGRAM™

# Next Steps/Plan for Sustainability

- Continue to monitor and track nursing time
- Internal Audit Monthly by RN team members
- Add other oral chemotherapies and biotherapies
- Run report for oral chemotherapies and biotherapies prescribed in EMR.  Review that the doses are on flow sheet and dose changes are documented

# Conclusions

- The team was able to appreciate how difficult it was to follow oral chemotherapy dosing using the old process.
- Creating a new process and tool in the EMR offers opportunity to improve thoroughness of documentation of oral chemotherapy
- Process developed improved the accessibility of data and reduced the time required to review data.

Jason Brown, MD
Calvin Han, MD
Betsy Brown RN, OCN



# Oral Capecitabine Documentation in the Electronic Medical Record Flow sheet

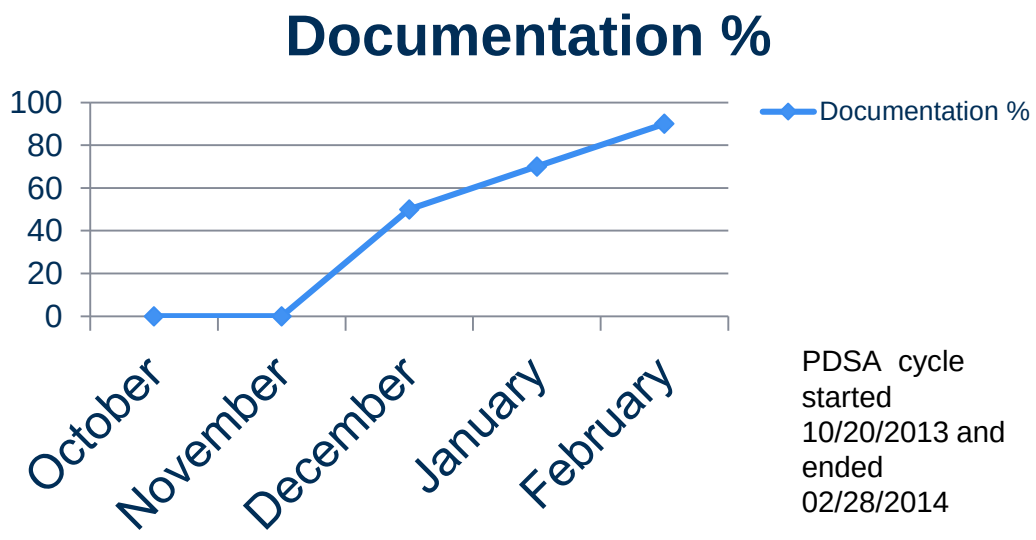
**AIM**: Increase EMR flow sheet documentation of Capecitabine dosage adjustments, dose intensity and toxicities to 90% for adult patients by March 31, 2014

**INTERVENTION:** Team formed and brainstormed to look at the current process and consider why the documentation wasn't complete. Fishbone diagram completed, initiated steps to implement change in the EMR and current process to devise a system that will offer documentation of oral chemotherapy in the flow sheet of the EMR.
Worked with software vendor and implemented change that offers ability to document oral chemotherapy on flow sheet. Staff reviewed how long it takes for current process and how long it takes with new process. Reviewed ability to find dosage, dose intensity and adjustments with toxicities. Training for nursing staff to enter data into EMR and training for physicians and ancillary staff to retrieve data is in the initial stages.

**TEAM:**
Yolanda G. Barco Oncology
Medical Oncology Department

**SPONSOR:**
Valerie Bond Waid,
MBA, BSN, FACHE
Director of YGBOI

**RESULTS:** Time to research dose intensity and Percent of complete Documentation on Flow sheet in EMR October, 2013- February 2014




PDSA cycle started 10/20/2013 and ended 02/28/2014

**CONCLUSIONS:** In process to meet aim. Improvement from 0% of documentation up to 90% on flow sheet. Improved from an average of 23 minutes to 90 seconds to review dosage, adjustments, dose intensity and toxicities.

**NEXT STEPS:** Monitor progress with internal audit. Add other oral chemotherapies in June 2014.
Run monthly reports to determine if oral chemotherapies are documented on flow sheet, Continue with team efforts until aim is achieved at 90% or above for other oral agents.

ASCO® QUALITY TRAINING PROGRAM™