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KNOWLEDGE CONQUERS CANCER

Project Title: Adverse Drug Reaction (ADR) Communication

Presenter's Name: Vidya Kollu, MD

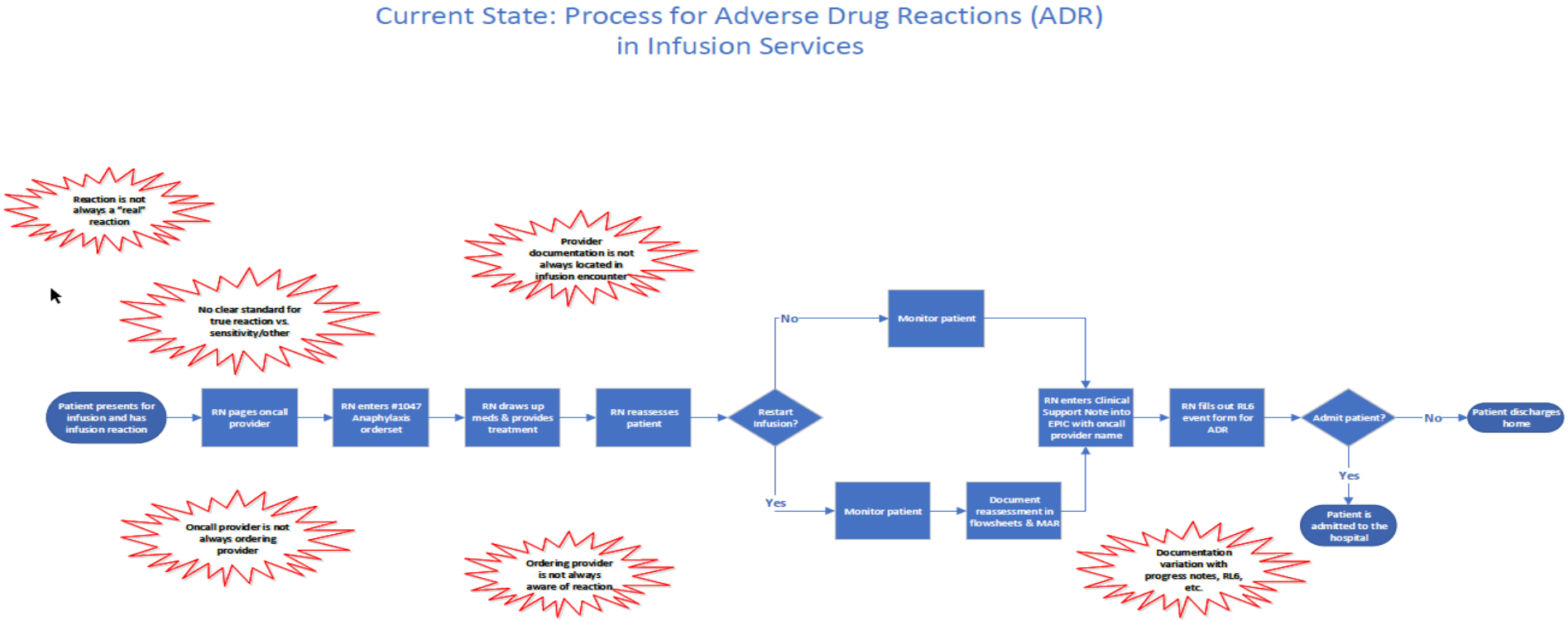
Institution: Gundersen Health System

Date: June 18, 2021

Problem Statement

Between January- December of 2020, patients receiving outpatient infusion therapy at Gundersen Infusion centers (Lacrosse, Onalaska, Winona) had 97 adverse drug reactions (ADR) while receiving the intravenous drugs. Of these ADRs, 41% were not clearly communicated to the ordering provider which could lend to repeat infusions. Ultimately, this can compromise patient safety, reduce quality of care and influence care experience.

Process map


Current State: Process for Adverse Drug Reactions (ADR) in Infusion Services
Reaction is not always a "real" reaction
Provider documentation is not always located in infusion encounter
No clear standard for true reaction vs. sensitivity/other
Patient presents for infusion and has infusion reaction
RN pages oncall provider
RN enters #1047 Anaphylaxis orderset
RN draws up meds & provides treatment
RN reassesses patient
Restart Infusion?
No
Monitor patient
Yes
Monitor patient
Document reassessment in flowsheets & MAR
RN enters Clinical Support Note into EPIC with oncall provider name
RN fills out RL6 event form for ADR
Admit patient?
No
Patient discharges home
Yes
Patient is admitted to the hospital
Oncall provider is not always ordering provider
Ordering provider is not always aware of reaction
Documentation variation with progress notes, RL6, etc.

Institutional Overview

- Physician-led, not-for profit healthcare system
- Integrated 22 county service area throughout western Wisconsin, northeastern Iowa and southeastern Minnesota serving urban and rural population
- Regional referral center with 6 affiliate hospitals
- Teaching hospital with 325 beds and Level II Trauma Center
- No. 1 employer in La Crosse County, WI
- Respecting Choices - An internationally recognized, evidence-based model for advance care planning (ACP) consisting of a staged approach to planning.

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Cancer Center Overview

Comprehensive cancer center offering medical, radiation and surgical oncology services

Offers a wide range of infusion services at three outpatient locations in La Crosse & Onalaska WI and Winona, MN

We are :

- An American College of Radiology accredited radiation oncology unit.
- Accredited by the Commission on Cancer
- A member of WiNCORP

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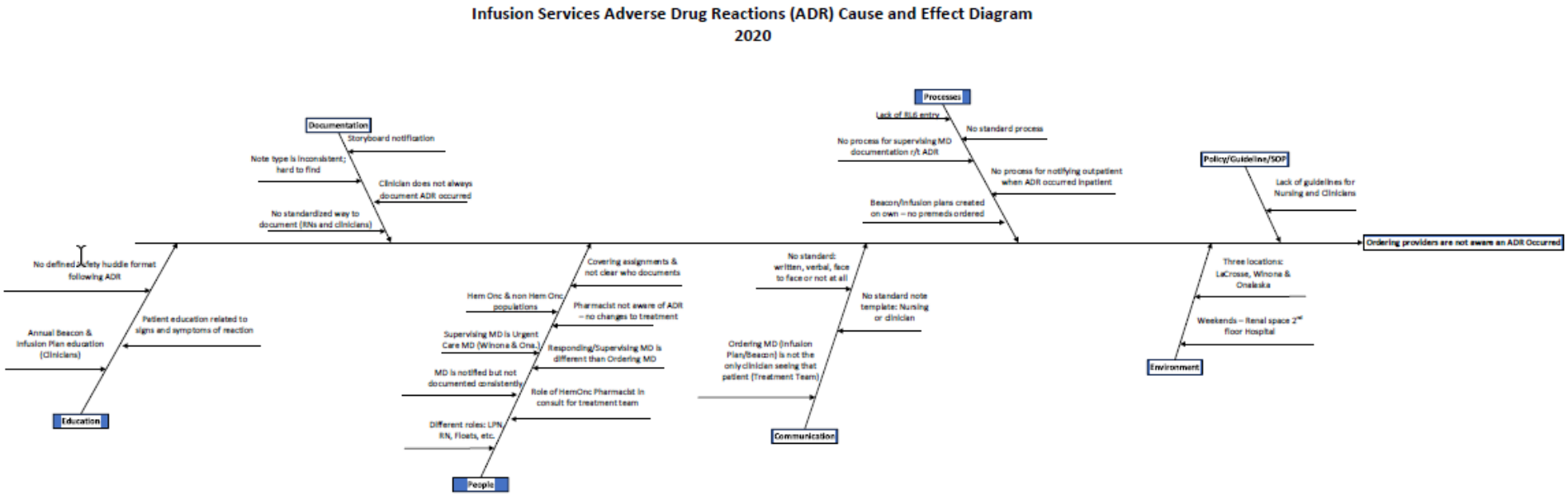
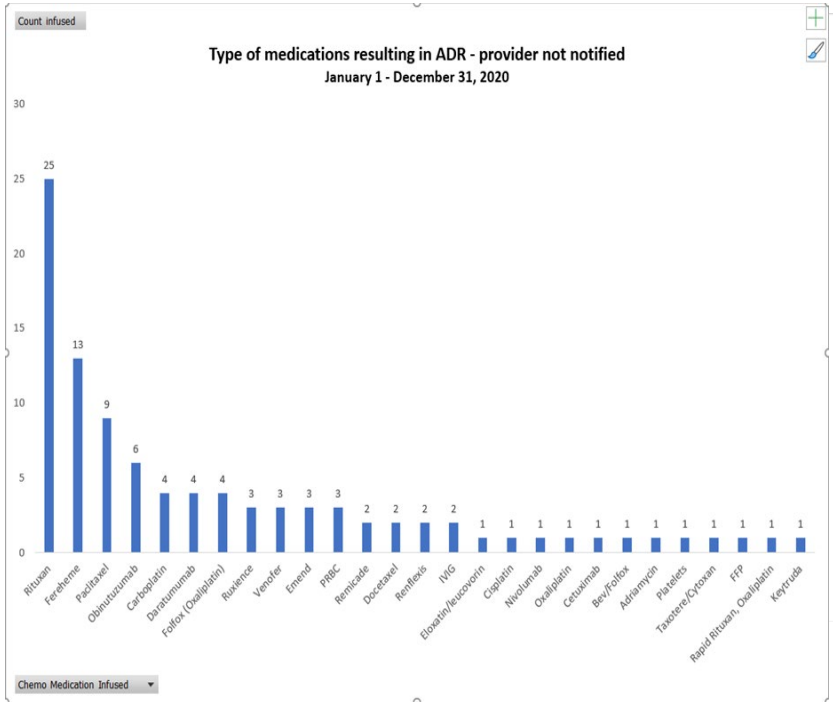
Team members

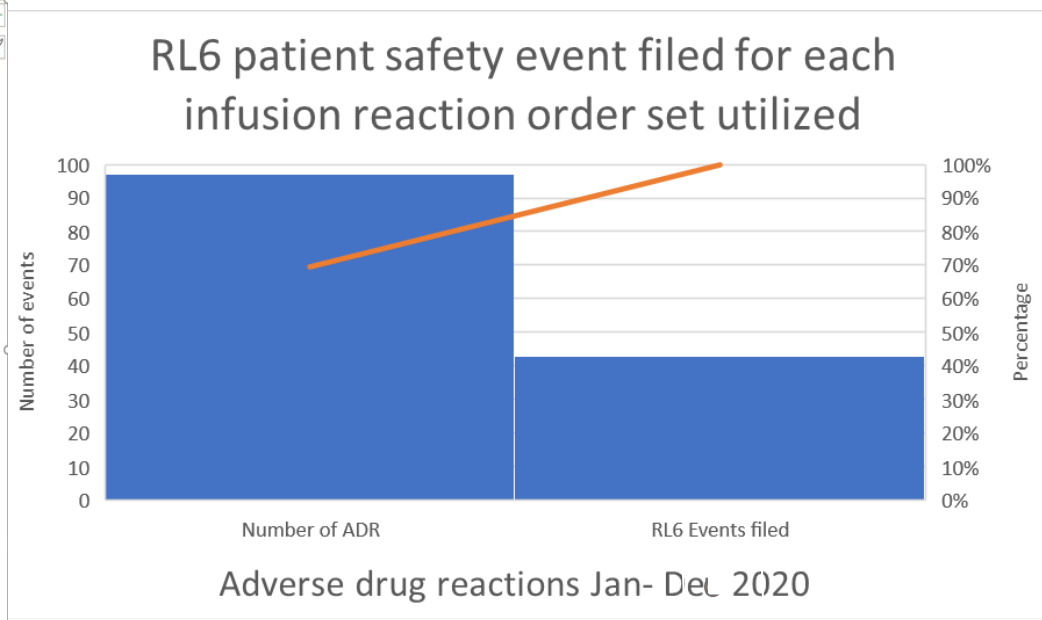
- Nina Conard, PA Hem Onc PA
- Jen Grasse, Clinical Nurse Leader
- Vidya Kollu, MD Hem Onc Fellow
- Lee Her Lee, RN Professional Development Nurse
- Paul Letandre, MD Hem Onc faculty
- Leanne Markos, RN Clinical Manager
- Kurt Oettel, MD Hem Onc faculty
- Sara Pingree, Infusion RN
- Megan Pinter, RPH Clinical Manager, Pharmacy
- Kendra Reynolds, Quality Improvement RN
- Cheyenne Stadtler, Hem Onc Clinic RN
- *Kristin Campbell, Information Services*

Cause and Effect diagram



Process Measure
Diagnostic Data

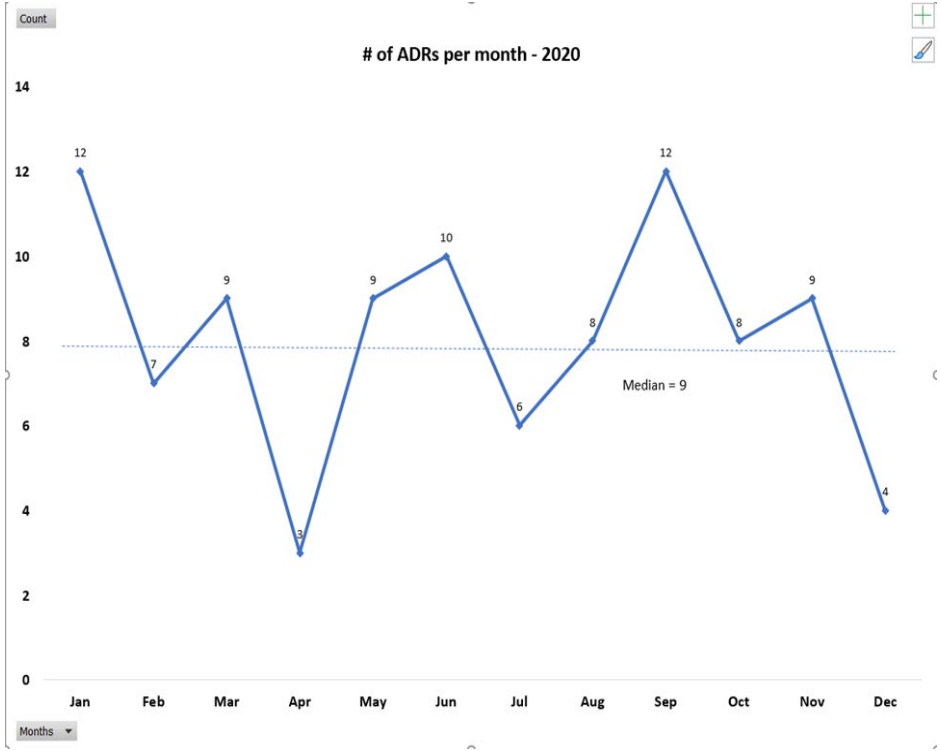


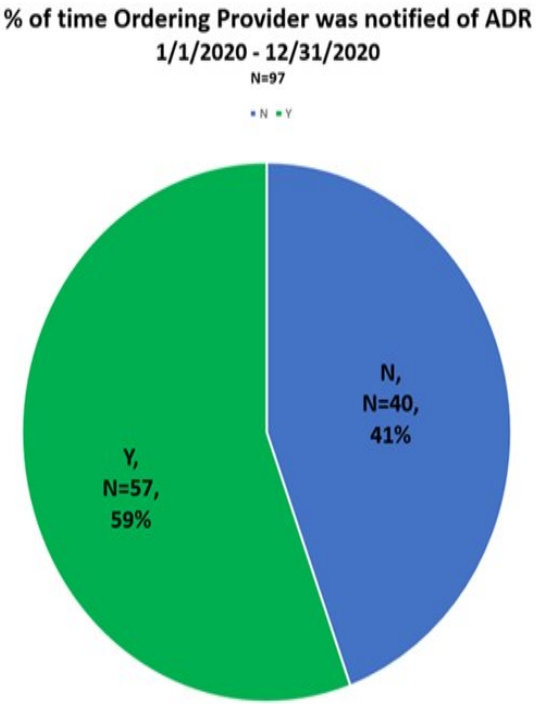


Aim Statement

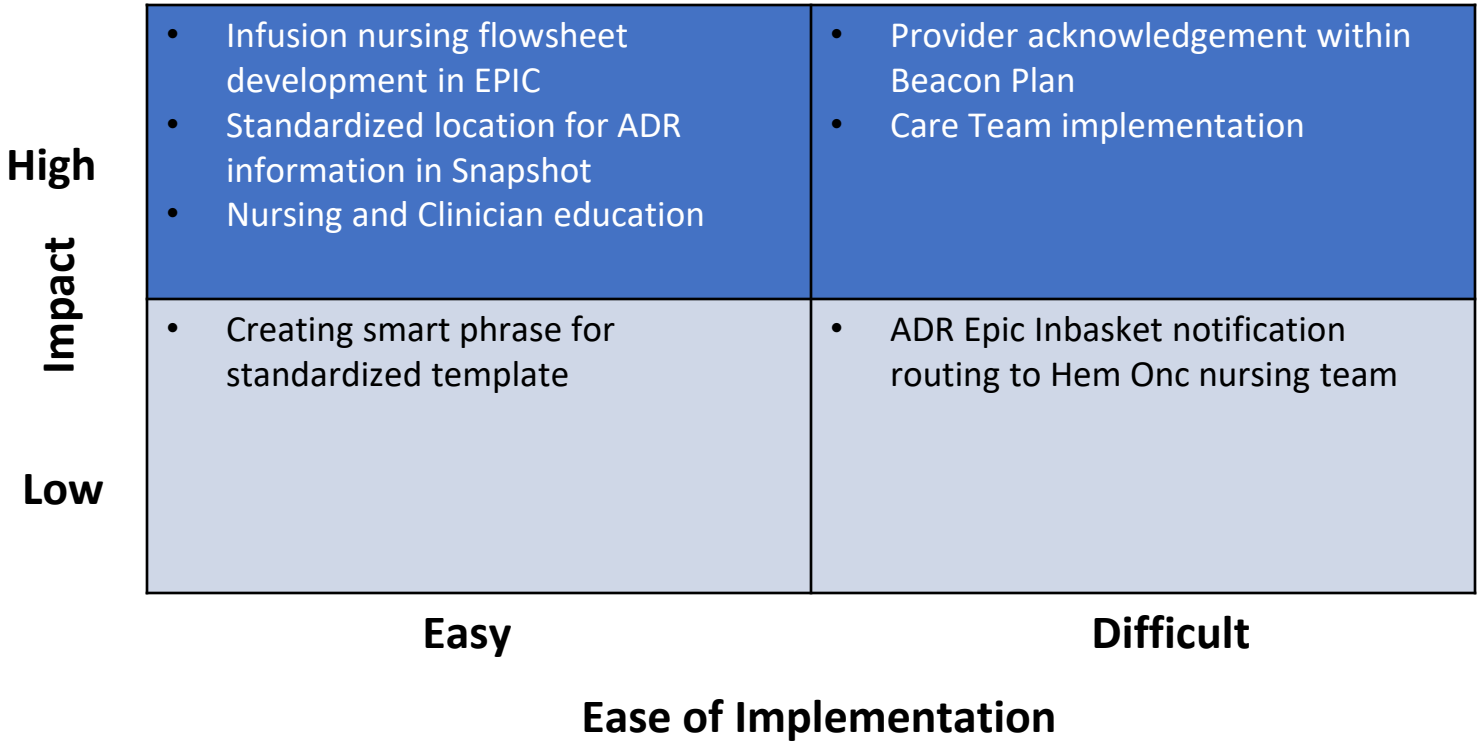
We aim to increase communication of a prior infusion reaction to ordering provider to 75% between April-June 2021.

Outcome Measure
Baseline data





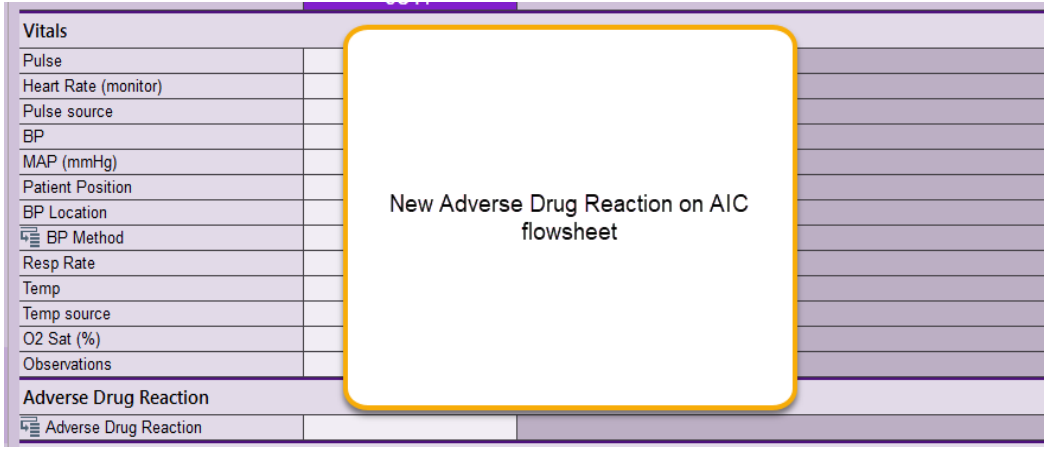
Prioritized List of Changes (Priority/Pay –Off Matrix)

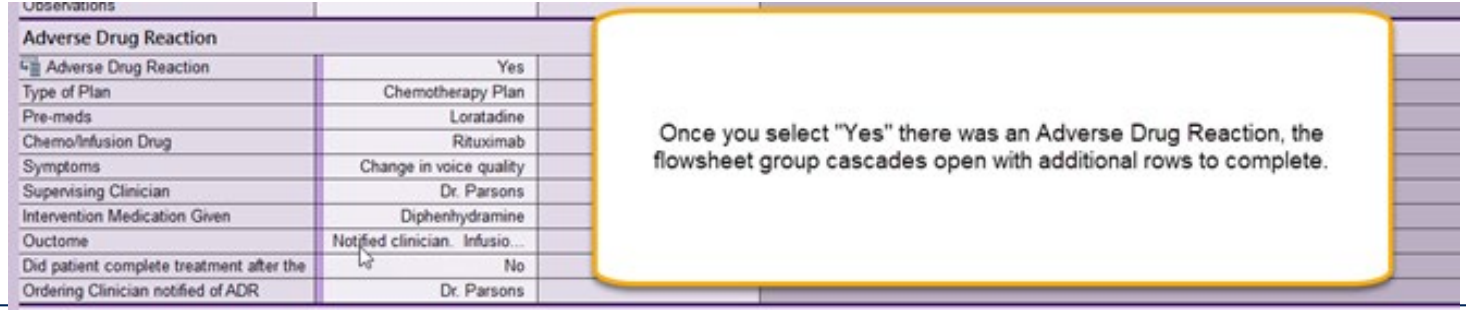


PDSA Plan (Test of Change)

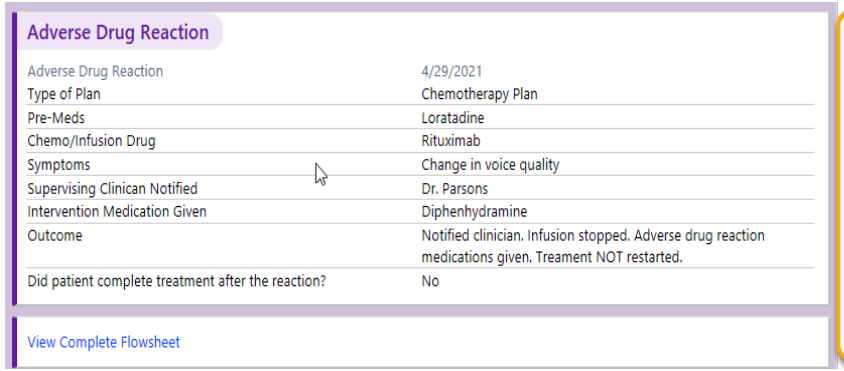
Date of PDSA Cycle	Description of Intervention	Results	Action Steps
May 18, 2021	Nursing flowsheet documentation with information flowing to templated note & visible in Snapshot under header “Adverse Infusion Reaction”	Flowsheet used 59% (10/17) of time. Ordering Clinician notified of ADR 71% (12/17) of time. Smartphrase used 6% (1/17).	Explore use of Care Teams for method of communication of ADR and functionality within Beacon Plans. This will aid in acknowledgment by clinician of ADR.
June 22, 2021	Use of Care Teams to drive Inbasket message; Hard stop acknowledgment order in Beacon plan	Pending	Pending

PDSA Cycle 1 - Materials Developed





PDSA Cycle 1 - Materials Developed



Adverse Drug Reaction

Adverse Drug Reaction	4/29/2021
Type of Plan	Chemotherapy Plan
Pre-Meds	Loratadine
Chemo/Infusion Drug	Rituximab
Symptoms	Change in voice quality
Supervising Clinican Notified	Dr. Parsons
Intervention Medication Given	Diphenhydramine
Outcome	Notified clinician. Infusion stopped. Adverse drug reaction medications given. Treament NOT restarted.
Did patient complete treatment after the reaction?	No

View Complete Flowsheet

An adverse Drug Reaction section will appear on the Beacon Snapshot and Springboard All reports which will pull the Adverse Drug Reaction information from the flowsheet.

PDSA Cycle 1 - Materials Developed

Adverse Drug Reaction

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Did patient complete treatment after the reaction?	No
View Complete Flowsheet	

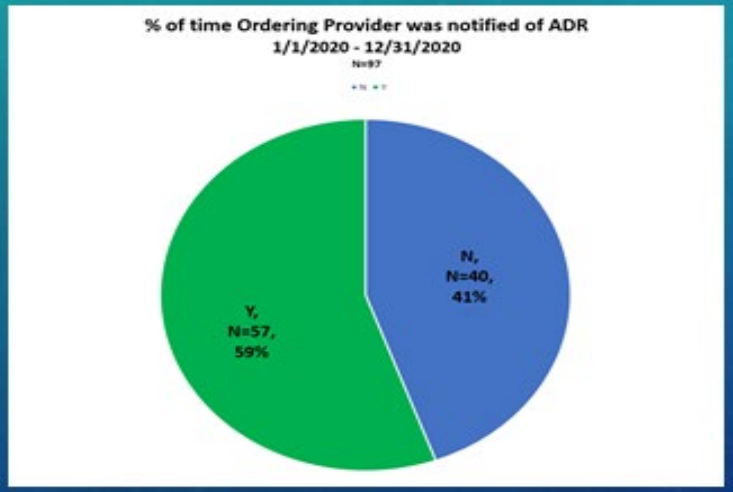
Patient educated to seek emergency medical care should signs and symptoms of infusion reactions develop after discharge.

Using the .adversedrugreaction smartphrase will also pull the information from the flowsheet section into a note.

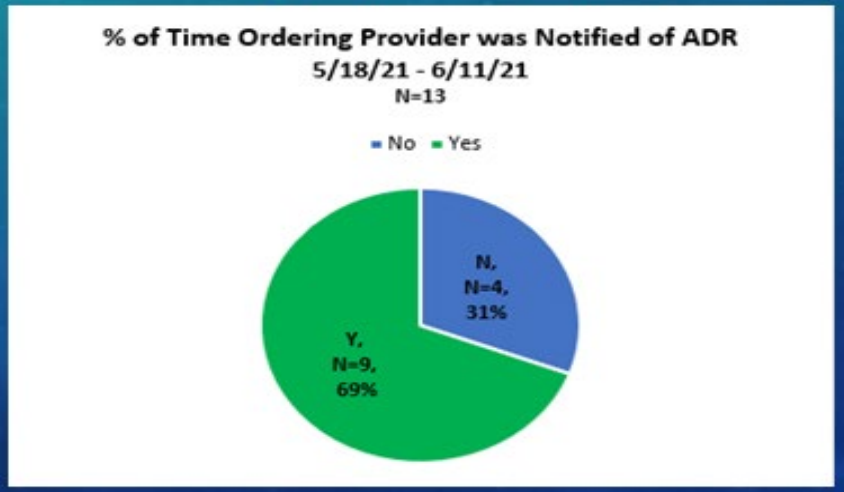
Change Data

PERCENT OF TIME ORDERING PROVIDER WAS NOTIFIED OF ADVERSE DRUG REACTIONS

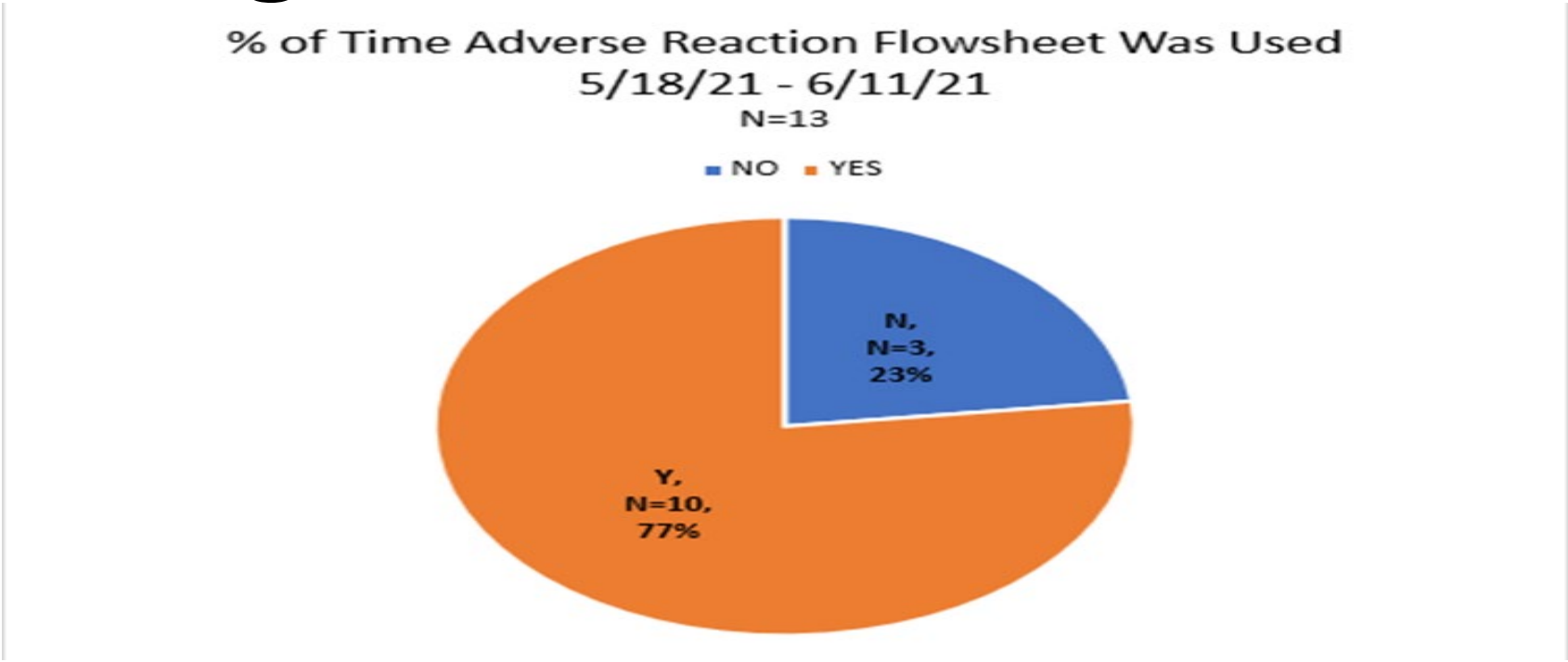
Pre- EPIC Changes



Post Changes (after 5/18/21)



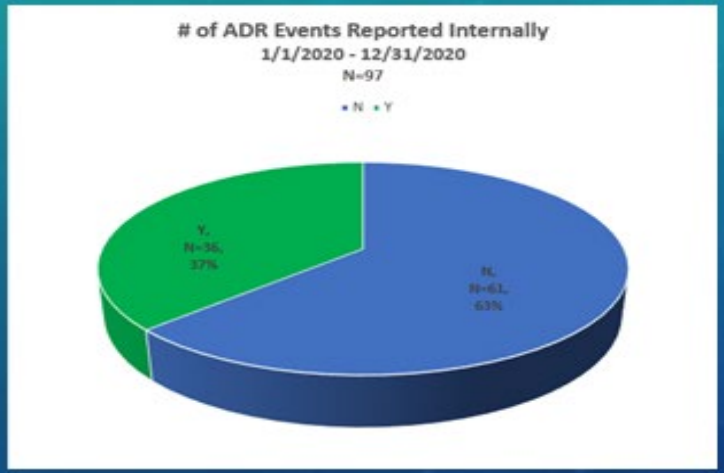
Change Data


% of Time Adverse Reaction Flowsheet Was Used
5/18/21 - 6/11/21
N=13
NO
YES
N, N=3, 23%
Y, N=10, 77%

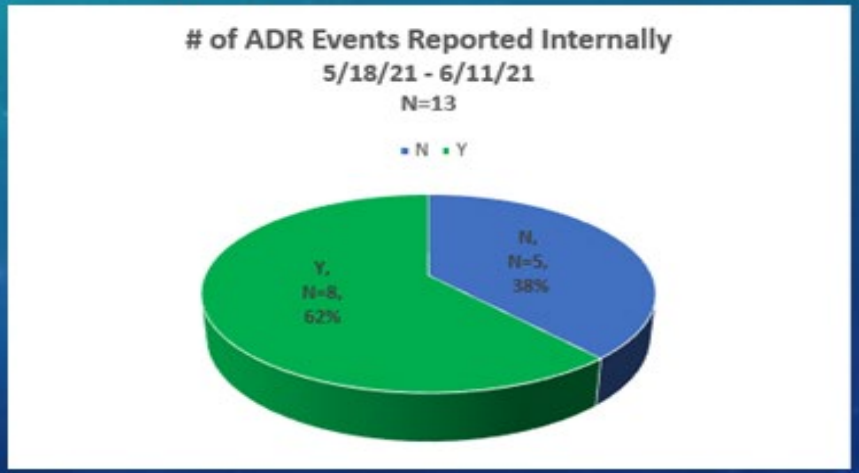
Change Data

IMPROVEMENT IN REPORTING ADR'S THROUGH OUR INTERAL TRACKING SYSTEM

Prior to 5/18/21

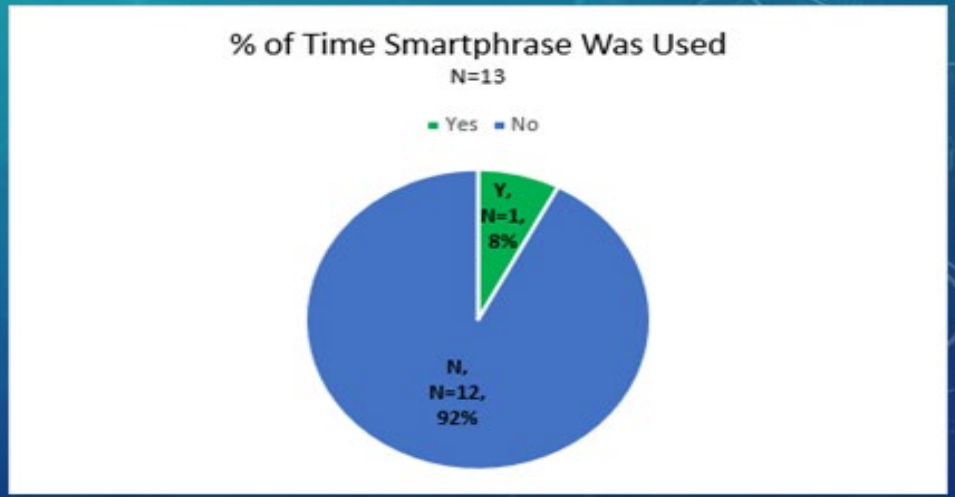


After 5/18/21



CONTINUED FOCUSED AREAS

- Relayer with nursing staff the benefits of utilizing the smartphrase to ensure consistent information is shared with the ordering provider and documented in the patient's chart (communication within the care team).

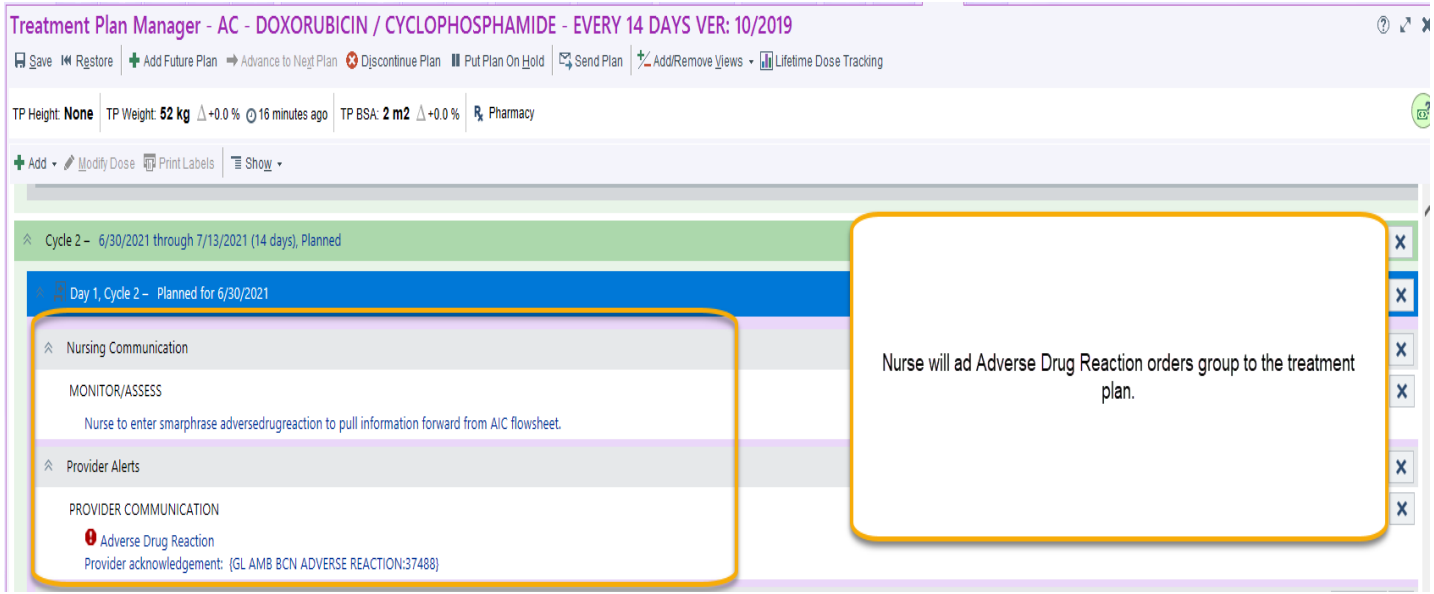


PDSA Cycle 2 – Materials Developed

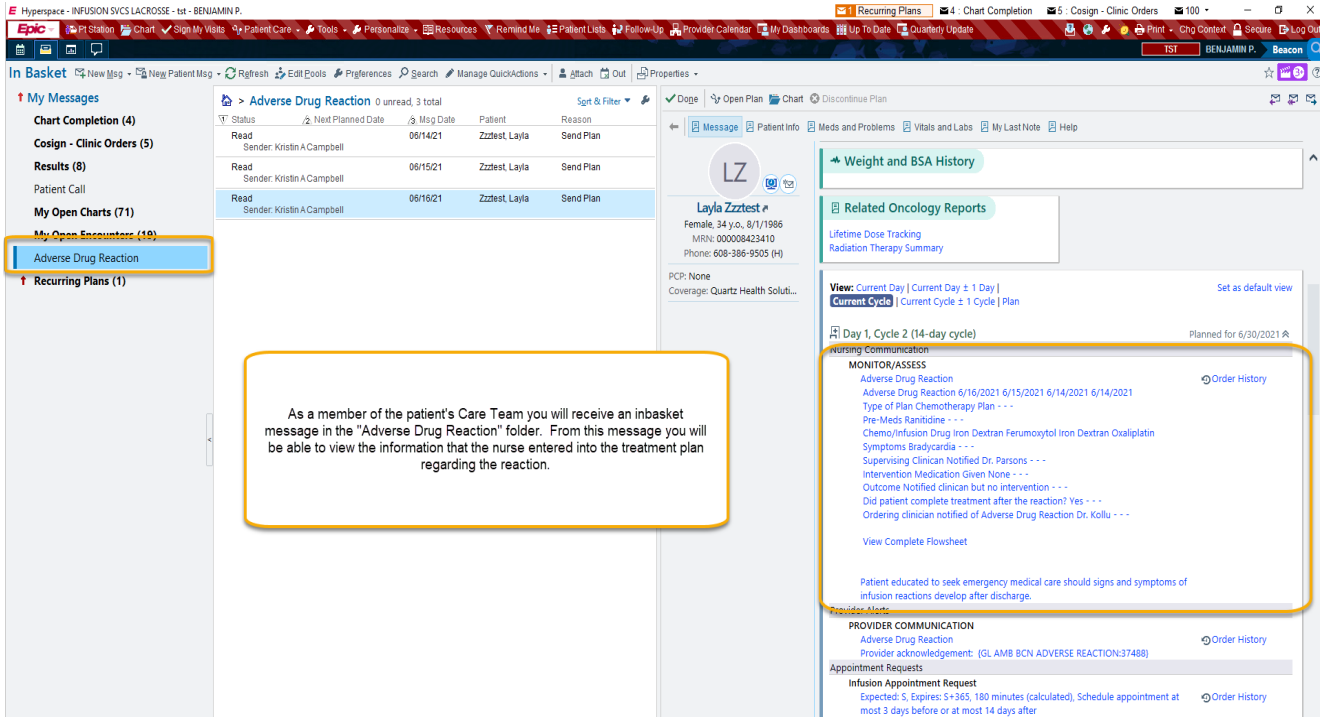
- All previous steps related to the flowsheet documentation and smartphrase will continue to occur.
- Once RN documents the chemo/infusion drug administered, automated message is sent to the ADR event folder within Epic Inbasket to all care team members.
- RN will add ADR orders group to treatment plan for clinician review
- Hard stop clinician acknowledgement within Beacon plan which will also let nursing know what changes were made (if any)

PDSA Cycle 2 – Materials Developed

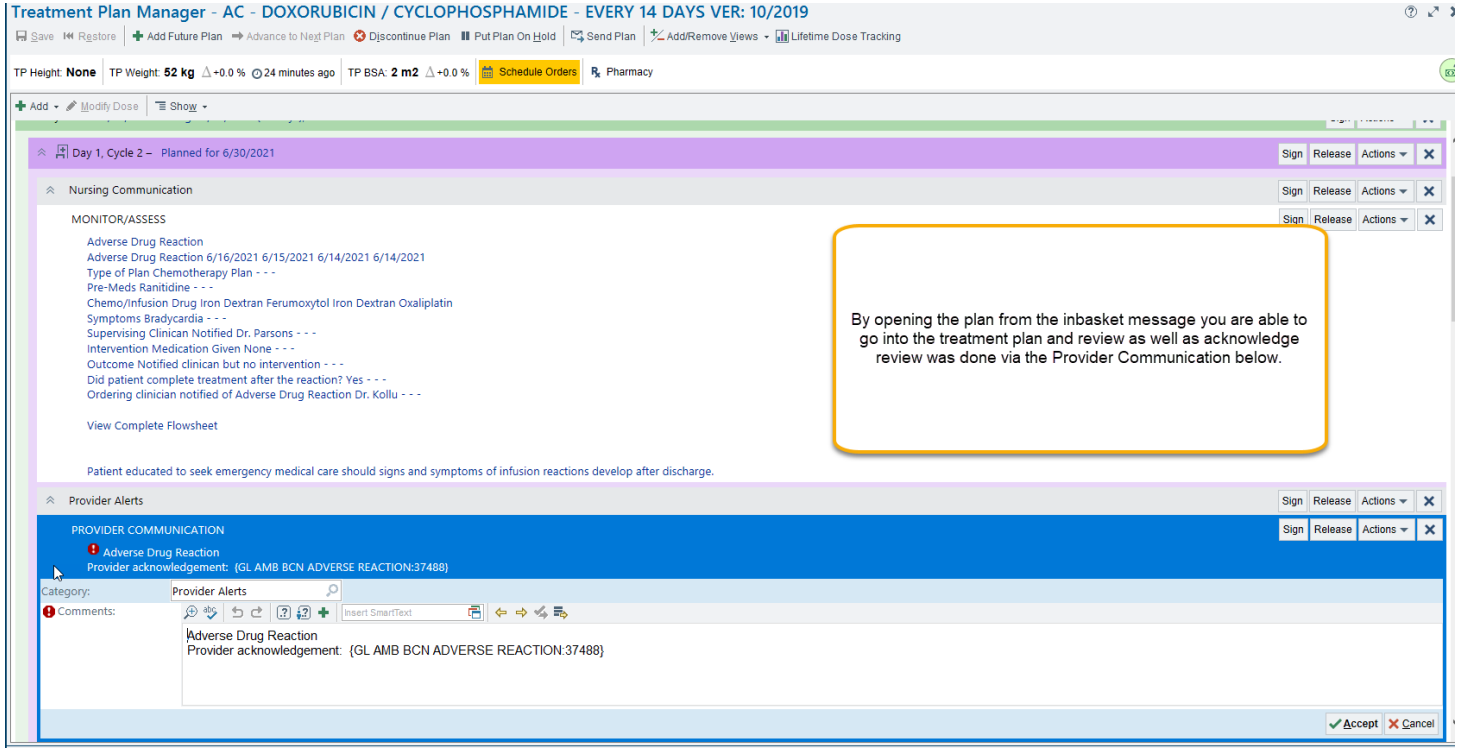
- All previous steps related to the flowsheet documentation and smart phrase will continue to occur.



PDSA Cycle 2 – Materials Developed

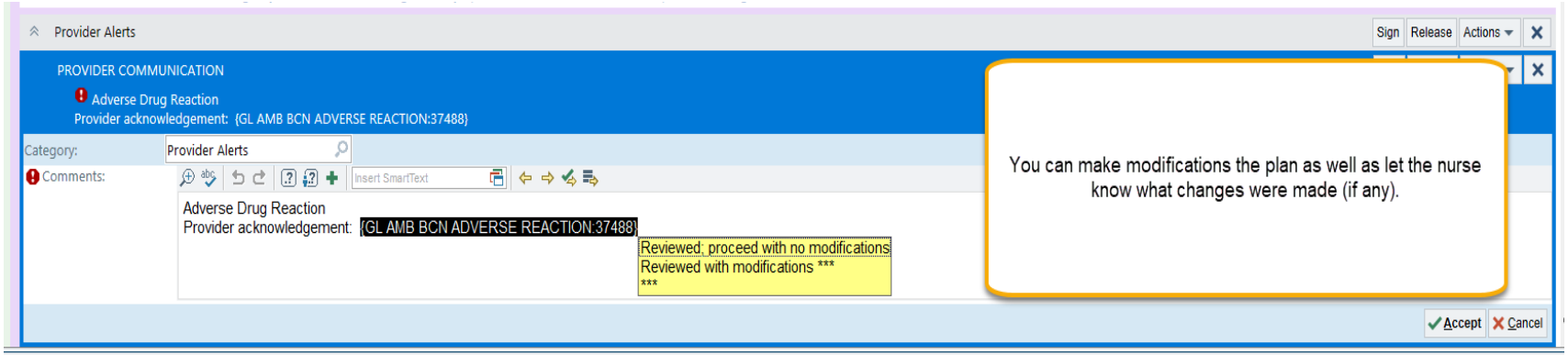


PDSA Cycle 2 – Materials Developed



By opening the plan from the inbasket message you are able to go into the treatment plan and review as well as acknowledge review was done via the Provider Communication below.

PDSA Cycle 2 – Materials Developed



Conclusions

- Improved communication to the ordering provider to notify them an ADR occurred.
- Standardized process/workflow for nursing staff to follow when an ADR occurs.
- 22% increase in reporting ADR's within our internal tracking system to better allow us to trend issues and tackle them in real-time.
  - Prior to the EPIC changes that occurred on 5/18/21, we only had 43% of those events submitted into our internal reporting system to assist us with looking at trends.
  - After the changes on 5/18/21, we saw 65% of all ADR events reported internally

Next Steps/Plan for Sustainability

- Continue to monitor data including:
  - Patient Safety Events
  - Use of ADR order set
  - RN processes
  - Clinician acknowledgement of ADRs
- Hardwire and continue to refine processes
- Implement in Inpatient setting for chemotherapy plans
- Consider implementation to Infusion Plans and other partnering departments for non-chemotherapy reactions
- Utilizing project as a CoC goal