

ASCO Quality Training Program

Adena Cancer Center

Chillicothe, OH

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Adena Cancer Center Overview

- The Adena Cancer Center provides comprehensive, patient-centered oncology care to patients in 9 counties in rural, South-Central Ohio.
- Services offered:
 - Medical Oncology
 - Radiation Oncology
 - Infusion Center
 - Pharmacy
 - Laboratory Services



Team Members

➤ *Project Sponsor*

Erin Woltz, MSN, RN

➤ *Team Leader*

Angela Wellman, APRN-CNP, AOCNP

➤ *Core Members*

Angela Smith, BSN, RN

Nicole Wolf, RN

➤ *Team Coach*

Laurie Kaufman, MSN, RN, CPHQ

➤ *Other Team Members*

Nichole Baker (Lab)

Stephen Powell, LPN (Scribe),

Paula Benner, BSN, RN (Research and Accreditation)

Mika Campbell, RN (Medical Oncology Clinic Lead)

Amanda Salyers, MSN, RN (Medical Oncology Clinic Lead)

Problem Statement

- 82% of adult oncology patients at Adena Cancer Center May- July, 2023, did not complete Hepatitis screening labs prior to the initiation of chemotherapy or immunotherapy.
- During 2015-2018, the prevalence of Hepatitis in the United States, past or present infections, was 4.3% (Kruszon-Moran, et.al, 2020).
- Reactivation of Hepatitis B (HBV) with immunosuppressive medications can occur in >10% of cancer patients depending on medication class, host factors and viral factors.
- Mortality rates with HBV reactivation range from 23-71% (Kawasar, et.al, 2012).

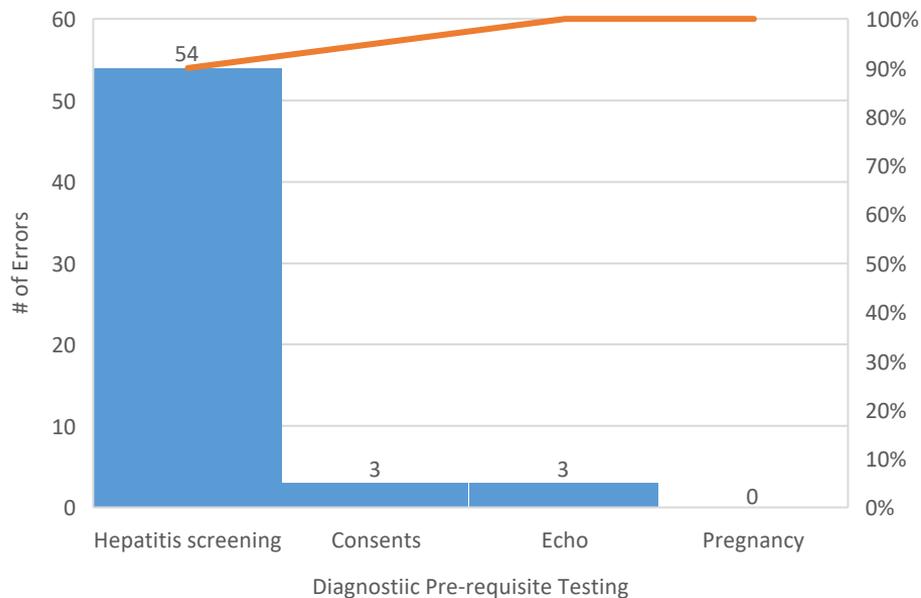
Diagnostic Data: Pareto Chart

Baseline Data:

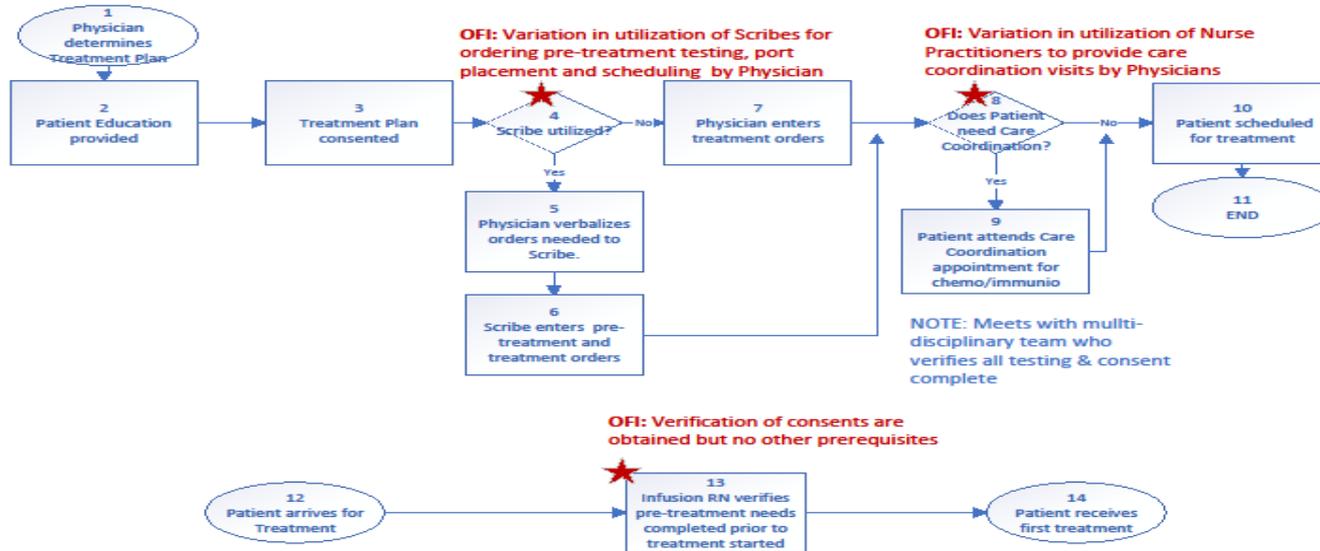
Total patients evaluated: 66

*Not every patient needed
echocardiogram or pregnancy
testing

Non-compliance with Completion of Pre-requisites Prior
to Chemo/Immunotherapy Treatments at Adena Cancer
Center May-July, 2023



Current Process Map



* Opportunities for Improvement

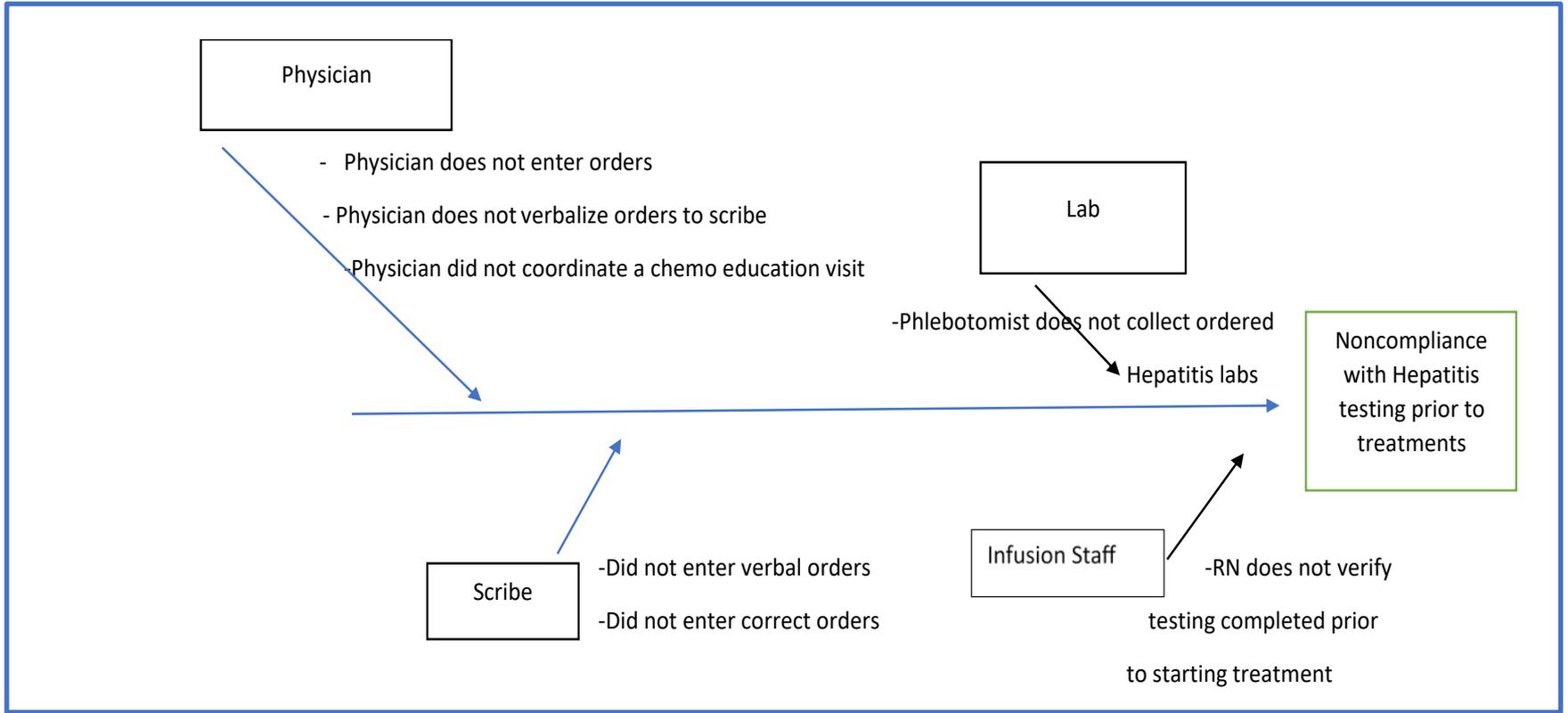
Opportunities for Improvement

Opportunities for Improvement in Hepatitis Screening Prior to Oncology Treatments May -July, 2023



- Staffing constraints with APPs prevents mandatory Care Coordination visits
- Infusion checklist does not include Hepatitis screening labs at this time

Cause and Effect Diagram

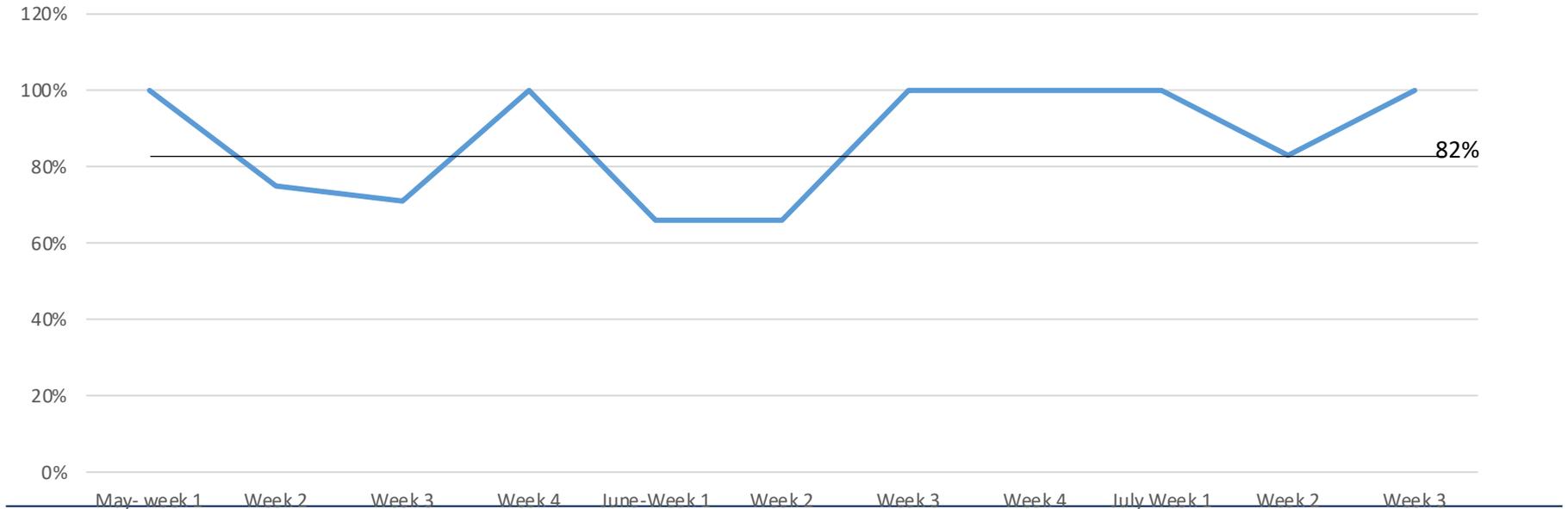


Baseline Data Summary

Item	Description
Measure:	Percentage of adult oncology patients at Adena Cancer Center in May –July, 2023, did not complete Hepatitis screening labs prior to initiation of chemotherapy or immunotherapy
Patient population: <i>(Exclusions, if any)</i>	Adult oncology patients at Adena Cancer Center beginning chemotherapy or immunotherapy
Calculation methodology: <i>(i.e. numerator & denominator)</i>	Numerator: # of patients that did not complete Hepatitis screening labs prior to initiation of chemotherapy/immunotherapy Denominator: # of new patients at Adena Cancer Center in May -July, 2023 with initiation of treatment plan (chemotherapy/immunotherapy)
Data source:	Chart review of new chemotherapy/immunotherapy starts bases on consents
Data collection frequency:	Weekly
Data limitations: <i>(if applicable)</i>	Manual review

Baseline Diagnostic Data

Percentage of Non-compliance with Hepatitis Screening Labs prior to
Chemo/immunotherapy at Adena Cancer Center May-July, 2023



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

Impact High	<p style="color: red;">Scribe to utilize checklist at time of consent</p> <p>Develop SOP</p> <p style="color: red;">Educate/provide clarity on role of team members</p>	<p>Make care coordination (chemo education) appointment mandatory</p> <p style="color: red;">Infusion RN double-check process step</p> <p>Add orders to every treatment plan in EMR</p>
	Easy	Difficult
Low	Ease of Implementation	

Process Measure Data Summary

Item	Description
Measure:	Use of checklist for Hepatitis lab ordering at time of consent
Patient population: <i>(Exclusions, if any)</i>	Adult patients at Adena Cancer Center beginning chemotherapy or immunotherapy treatments
Calculation methodology: <i>(i.e. numerator & denominator)</i>	Numerator: # of patients where team used checklist for Hepatitis labs orders prior to chemo/immunotherapy Denominator: # of total patients beginning chemotherapy or immunotherapy during the timeframe
Data source:	Chart review
Data collection frequency:	Weekly collection
Data limitations: <i>(if applicable)</i>	Manual

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
9/1/23 – 9/15/23 9/18/23 – 9/22/23 9/22/23 – 9/29/23 PDSA Cycle #1	<ul style="list-style-type: none"> Verbally initiated, to scribe/physician, need to order Hepatitis lab <ul style="list-style-type: none"> Checklist created (to be completed with any new start of chemo/immune therapy) Simplified Checklist Created 	<ul style="list-style-type: none"> Non-compliance decreased from 82% to 50% Still with much variation Began monitoring checklist utilization Improvement to 17% non-compliance 	<ul style="list-style-type: none"> Create Checklist Simplify checklist Provided copies of checklist to all scribes
10/2/23 – Ongoing PDSA Cycle #2	* Checklist Tested	<ul style="list-style-type: none"> Non-compliance decreased to 50% to 0% for 6 weeks from 9/18-11/3 100% compliance of scribes utilizing checklist 	* Angie Smith keeps spreadsheet
10/20/23 – 10/23/23 PDSA Cycle #3	* Infusion RN double-check process step	<ul style="list-style-type: none"> Nurses not looking for lab orders at all <ul style="list-style-type: none"> Lab didn't get collected 	* Educate infusion nurses to review lab orders prior to chemo and immunotherapy treatment.
10/23/23 – Ongoing PDSA Cycle #4	* Infusion nurses verify Hep screening prior to Chemo/Immuno administration	<ul style="list-style-type: none"> Non-compliance increased from 0% to 5% Infusion nurses state they cannot see the order in Epic 	<ul style="list-style-type: none"> Worked with infusion nurses to check orders the day before when they prep. Educate scribes in clinic how to enter orders so infusion nurses can visualize orders Monitored and given to Angie Smith for tracking
Future	Create SOP		
Future	Add lab order to Epic treatment plans		

Materials Developed - Checklist

PLACE PATIENT STICKER HERE

New Chemo/Immunotherapy Starts

Date:

Scribe:

Consent obtained: YES NO

Hepatitis Panel ordered: YES NO EPIC order = Hepatitis ~~abc~~
Profile reflex Quant, ~~Reflex C~~,
Genotype (LABHEPABC)
Use DX code: Z11.59

Pregnancy Test: YES NO N/A EPIC order = HCG Qualitative,
(Female age <50) Urine (LAB143)
Use DX code: ~~Z51.11~~ (chemo)
Use DX code: ~~Z51.12~~ (immuno)

EKG ordered: YES NO N/A Use DX code: Z01.818
(Only for Arsenic ~~tx~~)

ECHO ordered: YES NO N/A Use DX code: Z51.81

Complete and Return to Angie Smith

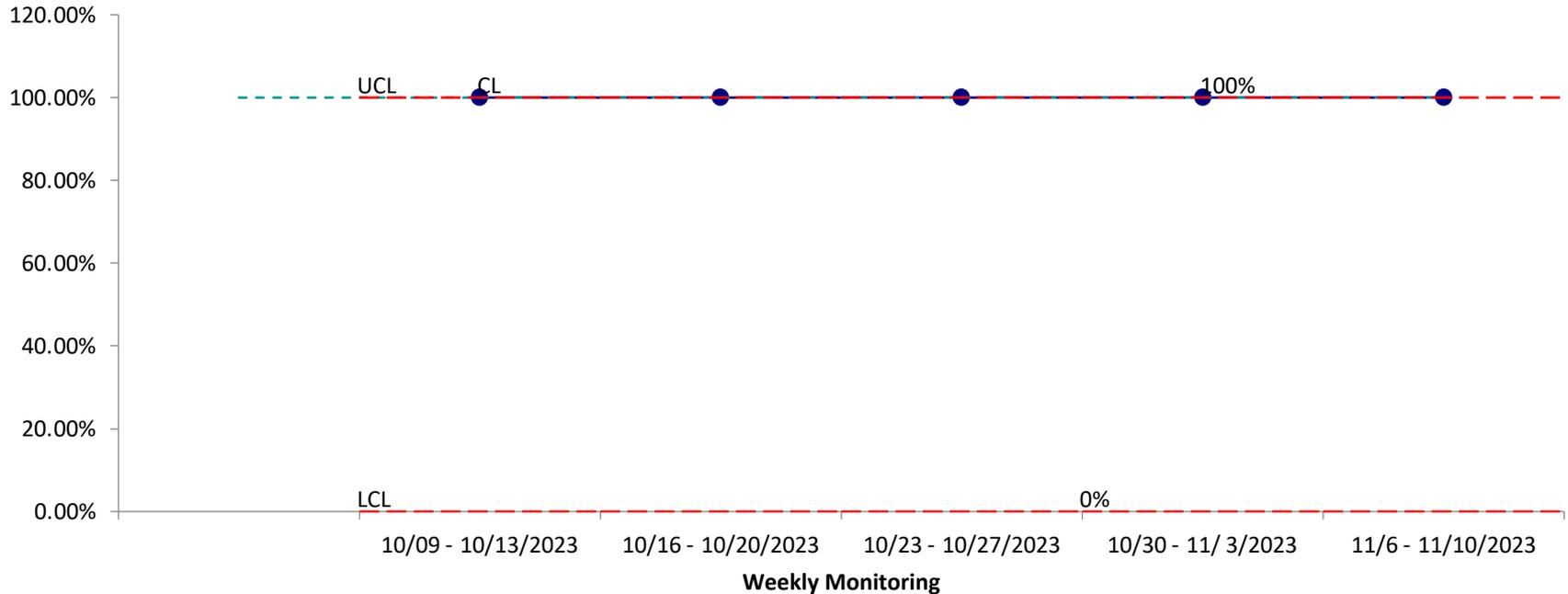
Measures Worksheet

	Outcome	Process	Balance
Measure	% Non-Compliance with Hepatitis screening labs prior to IV chemo/immunotherapy treatments	Use of checklist at time of consent for treatment	Any adverse effects to lab? Any additional cost to the health system?
Patient Population <i>(note exclusions)</i>	Patients at Adena Cancer Center beginning IV chemo/immunotherapy treatments August –November, 2023	Patients at Adena Cancer Center beginning IV chemo/immunotherapy treatments August –November, 2023	
Calculation Method <i>(Numerator/Denominator)</i>	% of patients that did not have Hepatitis screening prior to start of chemo/immunotherapy during specific timeframe	# of checklists completed/Total # patients starting treatment during timeframe	
Data Source	Manual collection	Manual collection	
Data collection frequency	Weekly	Weekly	
Data Quality <i>(limitations?)</i>	Manual collection	Manual collection	EMR reports not filtering Adena patients

Process Measure:

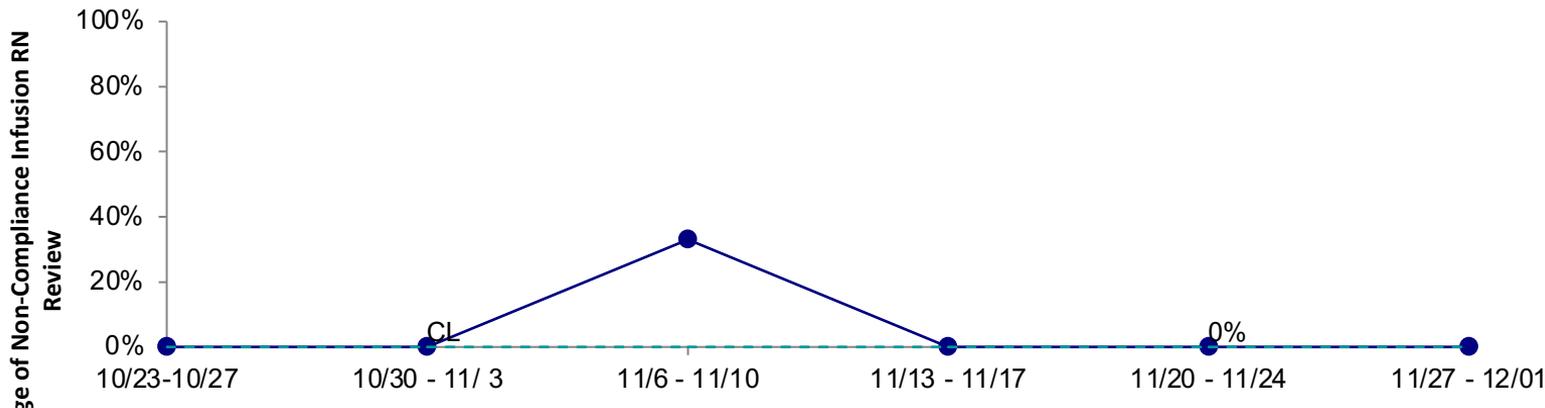
Percentage of Compliance with Checklist Use for Hepatitis Screening Orders at Time of Consent

P Chart of Checklist Use



Process Measure:

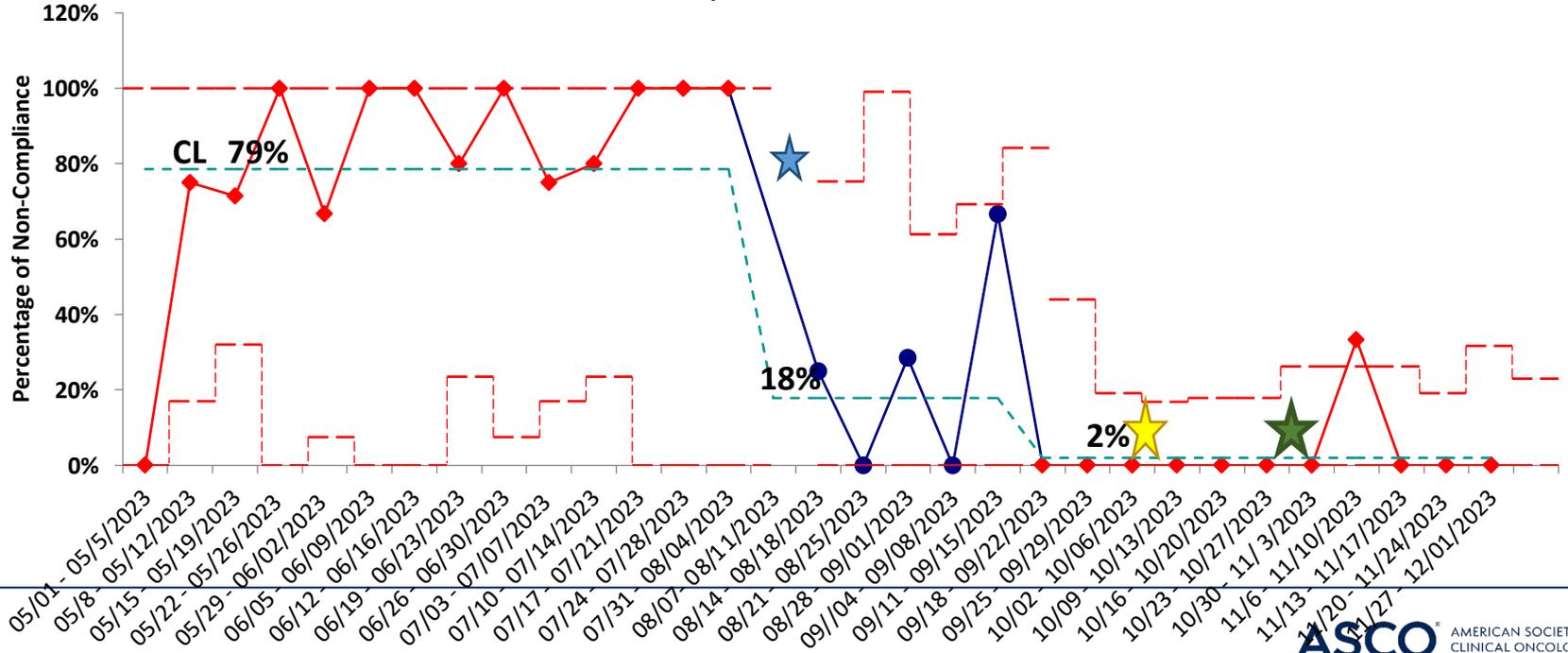
Percentage of Non-Compliance with Infusion RN double-check process step prior to Chemo/Immunotherapy at Adena Cancer Center 10/27/23-12/1/23
Run Chart



Outcome Measure

Percentage of Non-Compliance with Hepatitis Screening prior to Chemo/Immunotherapy at Adena Cancer Center May, 2023- November 2023

pChart



Conclusions

- Standardization is key to success
- We met our AIM and beyond!!
 - Goal was to decrease non-compliance to 50%
 - Overall, non-compliance decreased from 82% May- July, 2023 to 2% from October- November, 2023

Next Steps/Plan for Sustainability

- Present results to our team, providers and leadership
- Create Standard Operating Procedure (SOP)
- Add Hepatitis Lab to Epic in all treatment plans
- Hand off the monitoring of project to Cancer Center Quality Team

APPLIES TO: All Adena Cancer Center Staff

SOP: AMG SOP for Hepatitis Screening prior to Intravenous Chemotherapy and Immunotherapy
Issued: 1/1/2024
Revised / Edited: 1/1/2024
Expiration Date: 12/31/2026

MISSION STATEMENT OF SOP

Reactivation of Hepatitis B (HBV) with immunosuppressive medications can occur in >10% of cancer patients depending on medication class, host factors and viral factors. Mortality rates with HBV reactivation range from 23-71% (Kawasa, et al, 2012).

Mission of this policy is to improve Hepatitis Screening prior to initiation of intravenous chemotherapy or immunotherapy treatments at Adena Cancer Center

DEFINITIONS

Term	Definition
Hepatitis Screening	Hepatitis screening will include collection of Hepatitis ABC Profile Labs prior to initiation of intravenous chemotherapy or immunotherapy, if not previously tested in the past calendar year.
Treatments	Intravenous chemotherapy or immunotherapy
Physician Team	Physician, Advanced Practice Provider, Scribe or Registered Nurse

SOP DETAILS:

REQUIRED EQUIPMENT/MATERIALS

Hepatitis ABC Profile Order available in EMR:
Phlebotomists
Lab technicians
Specimen tube

Checklist of needed orders prior to initiation of intravenous chemotherapy or immunotherapy

PROCEDURE

- At time of chemotherapy/immunotherapy consent, physician team will utilize checklist for all needed testing prior to initiation of treatments
- Physician team will enter and sign needed Hepatitis ABC Profile orders at time of consent
- During next lab visit, or prior to initiation of intravenous treatments, Hepatitis ABC Profile testing will be collected by phlebotomist (venipuncture) or chemotherapy infusion RN (port draw) prior to initiation of cycle 1 treatments
- Chemotherapy infusion RN to verify all needed testing is completed prior to initiation of cycle 1 treatments

- To verify that testing complete, infusion RN to review lab results section of EMR to verify testing completed in the past year.
- If testing not completed, infusion RN to verify no open order in the chart review tab: labs section
- If testing ordered, but not collected, infusion RN to collect specimen prior to administering treatment
- If no testing ordered, infusion RN to contact medical oncologist for order and collect sample

RESPONSIBILITIES

Position or Office
Physician Team- Enter orders to Hepatitis Screening at time of consent for treatments
Phlebotomist/Chemotherapy Infusion RN- obtain ordered labs prior to initiation of cycle 1 treatments

RESOURCES / REFERENCES / LINKS

Subject	Department	Email / URL

SOP Development

References

- Kawsar HI, Shahnewaz J, Gopalakrishna KV, Spiro TP, Daw HA. Hepatitis B reactivation in cancer patients: role of prechemotherapy screening and antiviral prophylaxis. Clin Adv Hematol Oncol. 2012 Jun;10(6):370-8. PMID: 22895238.
- Kruszon-Moran D, Paulose-Ram R, Martin CB, Barker LK, McQuillan G. Prevalence and Trends in Hepatitis B Virus Infection in the United States, 2015-2018. NCHS Data Brief. 2020 Mar;(361):1-8. PMID: 32487291.