ASCO Quality Training Program

Adena Cancer Center
Chillicothe, OH

Angela Wellman APRN-CNP, AOCNP
Angela Smith BSN, RN
Nicole Wolf, RN

December 8, 2023
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
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
Physician
- Physician does not enter orders
- Physician does not verbalize orders to scribe
  - Physician did not coordinate a chemo education visit

Lab
- Phlebotomist does not collect ordered Hepatitis labs

Scribe
- Did not enter verbal orders
- Did not enter correct orders

Infusion Staff
- RN does not verify testing completed prior to starting treatment

Noncompliance with Hepatitis testing prior to treatments
## Baseline Data Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Patient population:</strong></td>
<td>Adult oncology patients at Adena Cancer Center beginning chemotherapy or immunotherapy</td>
</tr>
<tr>
<td><strong>Calculation methodology:</strong></td>
<td>Numerator: # of patients that did not complete Hepatitis screening labs prior to initiation of chemotherapy/immunotherapy&lt;br&gt;Denominator: # of new patients at Adena Cancer Center in May –July, 2023 with initiation of treatment plan (chemotherapy/immunotherapy)</td>
</tr>
<tr>
<td><strong>Data source:</strong></td>
<td>Chart review of new chemotherapy/immunotherapy starts bases on consents</td>
</tr>
<tr>
<td><strong>Data collection frequency:</strong></td>
<td>Weekly</td>
</tr>
<tr>
<td><strong>Data limitations:</strong></td>
<td>Manual review</td>
</tr>
</tbody>
</table>
Baseline Diagnostic Data

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

82%
## Prioritized List of Changes (Priority/Pay –Off Matrix)

<table>
<thead>
<tr>
<th>High Impact</th>
<th>Scribe to utilize checklist at time of consent</th>
<th>Make care coordination (chemo education) appointment mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Develop SOP</td>
<td>Infusion RN double-check process step</td>
</tr>
<tr>
<td></td>
<td>Educate/provide clarity on role of team members</td>
<td>Add orders to every treatment plan in EMR</td>
</tr>
<tr>
<td>Low</td>
<td>Easy</td>
<td>Difficult</td>
</tr>
</tbody>
</table>

**Ease of Implementation**

- **High Impact**: Make care coordination (chemo education) appointment mandatory, Infusion RN double-check process step
- **Low Impact**: Add orders to every treatment plan in EMR
- **Ease of Implementation**: Easy, Difficult
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong></td>
<td>Use of checklist for Hepatitis lab ordering at time of consent</td>
</tr>
<tr>
<td><strong>Patient population:</strong></td>
<td>Adult patients at Adena Cancer Center beginning chemotherapy or immunotherapy treatments</td>
</tr>
</tbody>
</table>
| **Calculation methodology:**              | **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:**                     | Manual                                                                                                                                                                                                        |
## PDSA Plan (Test of Change)

<table>
<thead>
<tr>
<th>Date of PDSA Cycle</th>
<th>Description of Intervention</th>
<th>Results</th>
<th>Action Steps</th>
</tr>
</thead>
</table>
| 9/1/23 – 9/15/23  
9/18/23 – 9/22/23  
9/22/23 – 9/29/23  
PDSA Cycle #1 | • Verbally initiated, to scribe/physician, need to order Hepatitis lab  
• Checklist created (to be completed with any new start of chemo/immune therapy)  
* Simplified Checklist Created | * Non-compliance decreased from 82% to 50%  
* Still with much variation  
* Began monitoring checklist utilization  
Improvement to 17% non-compliance | * Create Checklist  
* Simplify checklist  
* Provided copies of checklist to all scribes |
| 10/2/23 – Ongoing  
PDSA Cycle #2 | * Checklist Tested | * 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 | * Nurses not looking for lab orders at all  
• 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 | * Non-compliance increased from 0% to 5%  
* Infusion nurses state they cannot see the order in Epic | * 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

## New Chemo/Immunotherapy Starts

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consent obtained:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis Panel ordered:</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Pregnancy Test:</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>EKG ordered:</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>ECHO ordered:</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

**Hepatitis Panel ordered:***
- EPIC order = Hepatitis PCR
- Profile reflex: Quant. RF, IgG, C
- Genotype (LABHER/MBC)
- Use DX code: 211.59

**Pregnancy Test:**
- (Female age <50)
- EPIC order = HCG Qualitative, Urine (LAB143)
- Use DX code: 751.11 (chemo)
- Use DX code: 751.12 (immuno)

**EKG ordered:**
- (Only for Aspersic 1g)
- Use DX code: 201.818

**ECHO ordered:**
- Use DX code: 251.81

Complete and Return to Angie Smith
# Measures Worksheet

<table>
<thead>
<tr>
<th>Measure</th>
<th>Outcome</th>
<th>Process</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Non-Compliance with Hepatitis screening labs prior to IV chemo/immunotherapy treatments</td>
<td>Use of checklist at time of consent for treatment</td>
<td>Any adverse effects to lab? Any additional cost to the health system?</td>
<td></td>
</tr>
<tr>
<td>Patients at Adena Cancer Center beginning IV chemo/immunotherapy treatments August –November, 2023</td>
<td>Patients at Adena Cancer Center beginning IV chemo/immunotherapy treatments August –November, 2023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculation Method (Numerator/Denominator)</td>
<td>% of patients that did not have Hepatitis screening prior to start of chemo/immunotherapy during specific timeframe</td>
<td># of checklists completed/Total # patients starting treatment during timeframe</td>
<td></td>
</tr>
<tr>
<td>Manual collection</td>
<td>Manual collection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly</td>
<td>Weekly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual collection</td>
<td>Manual collection</td>
<td>EMR reports not filtering Adena patients</td>
<td></td>
</tr>
</tbody>
</table>
Process Measure:
Percentage of Compliance with Checklist Use for Hepatitis Screening Orders at Time of Consent

P Chart of Checklist Use

Weekly Monitoring

LCL  CL  100%  UCL
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
Percentage of Non-Compliance with Hepatitis Screening prior to Chemo/Immunotherapy at Adena Cancer Center May, 2023 - November 2023

Outcome Measure
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
SOP Development

APPLICABLE 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: 12/31/2025

MISSION STATEMENT OF SOP

Hepatitis C (HCV) with immunosuppressive medications can occur in > 10% of cancer patients depending on medication class, host factors, and viral factors. Mortality rate with HCV exacerbation range from 23-71% (SPAWKIN, et al, 2021)

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

DEFINITIONS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis</td>
<td>Screening</td>
</tr>
<tr>
<td>Screening</td>
<td>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.</td>
</tr>
<tr>
<td>Treatments</td>
<td>Intravenous chemotherapy or immunotherapy</td>
</tr>
<tr>
<td>Physician Team</td>
<td>Physician, Advanced Practice Provider, or Licensed Nurse</td>
</tr>
</tbody>
</table>

SOP DETAILS:

1. Physician Team: File orders to Hepatitis Screening at time of consent for treatment.

2. Phlebotomist/Chemotherapy infusion RN: Obtain ordered labs prior to initiation of cycle 1 treatments

REMARKS

To verify that testing complete, infusion RN to review lab results section of EMR to verify testing completed in the past year.

b. If testing not completed, infusion RN to notify no open order in the chart review tab: labs section.

c. If testing completed, but not collected, infusion RN to collect specimen prior to administering treatment.

d. If no testing ordered, infusion RN to contact medical oncologist for order and collect sample.

PROCEDURE

1. At time of chemotherapy/immunotherapy consent, physician team will utilize checklist for all needed tests prior to initiation of treatments.

2. Physician team will enter and sign needed hepatitis ABC profile orders at time of consent.

3. During new 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.

4. Chemotherapy infusion RN to verify all needed testing is completed prior to initiation of cycle 1 treatments.
References
