ASCO Quality Training Program

University of Virginia Interhospital Transfer Quality Improvement Project

Philip Young, MD – UVA Hematology Oncology Fellow
Institutional Overview

• The University of Virginia is a tertiary care center in central Virginia

• UVA comprehensive cancer center is Virginia’s only NCI designated comprehensive cancer center

• The inpatient service line consists of ~40 beds on two units in the hospital

• Patients are frequently transferred to UVA hospital from community hospitals throughout Virginia
Team members

- Team Leader: Philip Young, MD – UVA Hematology Oncology Fellow
- Firas El Chaer, MD – Assistant Professor, UVA Division of Hematology Oncology
- Joseph Mort, MD – UVA Internal Medicine Resident
- Nicholas Lucchessi, MD – UVA Internal Medicine Resident
- Michael Keng, MD – Associate Professor, UVA Division of Hematology Oncology
- Michael Douvas, MD – Associate Professor, UVA Division of Hematology Oncology
- Jeanne Giordano, RN – Charge RN
- Yi Qin, RN – Night Charge RN
- Duncan Phillips, MBA, LSSBB – QTP Coach
Problem Statement

A median of 67% patients transferred to the UVA hematology and oncology acute care floor from July - December 2021, **did not have a clinical update documented in Epic within 12 hours of arrival** to the acute care floor. This included:

- Vital signs
- Overall clinical status

This can lead to an inadequate level of care upon arrival.
## Outcome Measure
### Baseline data summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure:</strong></td>
<td>Percent of patients that did not have a clinical update documented in Epic (vital signs and overall clinical status) within 12 hours of arrival.</td>
</tr>
<tr>
<td><strong>Patient population:</strong></td>
<td>Patients transferred to the UVA hematology and oncology acute care floors. (This excludes patients admitted through the UVA emergency department)</td>
</tr>
</tbody>
</table>
| **Calculation methodology:**                                        | **Numerator:** Heme onc patients transferred to UVA *without* appropriate documentation in Epic  
**Denominator:** All heme onc patients transferred to UVA                                                                 |
| **Data source:**                                                    | UVA electronic medical record (Epic): transfer encounter tab                                                                                                                                                  |
| **Data collection frequency:**                                      | Monthly collection between July 2021 – December 2021                                                                                                                                                           |
| **Data limitations:**                                               | • Did not include non-Epic data sources  
• Did not include patients who were accepted for transfer but did not ultimately come to UVA or patients routed to UVA intensive care unit |
Outcome Measure
Baseline data

Percent of patient with an inadequate Clinical Update – w/in 12 hours of transfer

Median: 67%
Aim Statement

To reduce the percent of patients transferred to the UVA hematology and oncology acute care floors, without a documented clinical update in EPIC within 12 hours of arrival, to **45%** by June 2022.
Summary:

- Process has several decision points that can impact the time it takes to transfer a patient.
- Process involves clinical & non-clinical staff.
- Process has multiple steps that require current clinical information to be shared.
Cause and Effect diagram

**Summary:**
Lack of an updated ‘clinical status’
Involves poor communication between:
- Transfer hosp. & UVA
- UVA clinical & non-clinical staff

Overall delays in transferring a patient
# Process Measure

## Diagnostic Data summary

<table>
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<tr>
<th>Item</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Measure:</strong></td>
<td>Patient’s documented ‘Clinical Update’ status upon arrival.</td>
</tr>
<tr>
<td><strong>Patient population:</strong></td>
<td>Patients without an appropriate update within 12 hours of transfer</td>
</tr>
<tr>
<td>(Exclusions, if any)</td>
<td></td>
</tr>
</tbody>
</table>
| **Calculation methodology:** | Divided patients into two groups by time from acceptance to arrival:  
  • > 12 hours  
  • < 12 hours  
  Divided each group into sub-groups by which data was missing  
  • Vitals  
  • Clinical  
  • Both |
| **Data source:**          | Epic Transfer Encounter                                                                                                                     |
| **Data collection frequency:** | Collected 6 months of baseline data                                                                                                          |
| **Data limitations:**     | - Did not include data available by other means (Care Everywhere)  
  - Did not include other forms of communication (email)                                                                                  |
Process Measure
Diagnostic Data

Transfer time (acceptance to arrival)

> 12 hours
< 12 hours

Missing Information

Vitals
Clinical Update
Both

Transfer Patients ‘Clinical Update’ status upon arrival

> 12 hrs, both
< 12 hrs, both
> 12 hrs, clinical
< 12 hrs, clinical

American Society of Clinical Oncology
Knowledge Conquers Cancer
**Priority / Pay-off Matrix**

**Countermeasures**

<table>
<thead>
<tr>
<th>High Impact</th>
<th>Low Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Easy</strong></td>
<td></td>
</tr>
<tr>
<td>Dot phrase for fellows to document in EPIC</td>
<td></td>
</tr>
<tr>
<td>RN to provide MD team of clinical update from RN-RN handoff</td>
<td>Team Huddle (Charge RN, MD, Transfer Ctr) regarding update of pending transfer</td>
</tr>
<tr>
<td>Allow RN and MD to edit intake transfer encounter, notify with updates</td>
<td></td>
</tr>
<tr>
<td>Transfer center intake form by service line</td>
<td></td>
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</tbody>
</table>

**Difficult**

Develop Process for transfer center to update clinical team of any clinical update
# PDSA Plan (Test of Change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Results</th>
<th>Next Steps</th>
</tr>
</thead>
</table>
| 4/1/22  | Fellows use prepared smartphrase to collect data from OSH and document in chart | Improved communication of initial transfer call (no patients without documentation of vital signs) | - Create system-wide smartphrase  
- Share with attendings to use if fellows not involved in transfer |
| 4/8/22  | RN use prepared flowsheet to document data collected from OSH RN prior to transfer | Improved communication of updates                                       | Multi-disciplinary huddle to receive updates on patients who have not yet arrived |
Outcome

• Goal was to achieve 45% without an appropriate clinical update

• After PDSA 1, achieved 22% and 29%, trend not statistically significant
There were no patients transferred within 12 hours who lacked documentation of vital signs in April to May.

The majority of patients lacking an update within 12 hours was due to a delay in transfer.
**Process Data**

- **Fellows:** Utilize Smartphrase and document in EPIC
- **RN:** Collect information from transferring RN, document in chart, and relay to the primary accepting team

**Compliance with Intervention**

- April 2022: Fellows 30%, RN 60%
- May 2022: Fellows 60%, RN 30%
Summary

• **Patients without an appropriate clinical update:**
  – DECREASE from a median of 67% to 22%.
  – 29% in the first 2 months after our intervention.

• 80% of the defects were due to: *the team not receiving a clinical update status prior to their arrival.*
Next Steps

• **PDSA cycle #2:**
  
  – Implement a huddle in which the clinical team reviews pending transfers and shares updates on the patients prior to arrival.