Project Title: Decrease emergency room patients' visit suggested by fellows on call after office hours

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Institution: Allegheny Health Network Cancer Institute

Date: June 17 2022
Institutional Overview
Team members: Dr. Finley and all fellows

Dr. Gene Finley
Pragnan Kancharla, MD
Jiaxiang Liu, MD
Problem Statement

ER visited suggested by fellows on call after office hours

From 10/2021 to 1/2022, there were 50 encounters noted that fellows on call suggested patients to have ER visit.

It increases ER burden especially during ongoing COVID pandemic, decreases patients' satisfaction, and increases the healthcare financial cost.
Process Map

1. Labs calls → on call fellows → suggested ER visit → admitted
   - Office to follow up next day → discharged

2. Patient calls → on call fellows → suggested ER visit → admitted
   - Office to follow up next day → discharged

[Images of the process map with nodes and arrows indicating the flow of process steps.]
Cause and Effect diagram

- Labs issues
- Delay notification
- Not calling in clinical hours
- Patient educations
- Fellow education
- Need perfected in management
- Lack management census / pathway
- System issues
- Providers suggested patients’ ER visit after hours
- Lack alternative resources
- Culture to suggesting ER visit
- Cost and reimbursement
Diagnostic Data

- Provider suggesting ER visit
- Time frame: 10/2021 – 1/2022
- Providers: 12 fellows on call
- 50 encounters visit
Aim Statement

To decrease one third of these provider suggested ER visit encounters
Measures

• Measure: Patients’ ER visit encounters suggested by on call fellows

• Patient population: established oncology patients
  - Exclusions (if any)

• Calculation methodology: percentage patients referred to ER
  - Numerator & Denominator (if applicable)

• Data source: Internal fellows on call sign out emails

• Data collection frequency: weekly

• Data quality (any limitations): variation of signing out details
Baseline Data

Fever 7 out of 7
Abnormal labs: 2 cases Hb 6-7; 2 cases K>6;
Nausea/vomiting/Diarrhea: 6 out of 6
### Prioritized List of Changes (Priority/Pay – Off Matrix)

<table>
<thead>
<tr>
<th>Ease of Implementation</th>
<th>Fellow’s education Draft protocol guideline</th>
<th>Implore oncology care protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Re established oncology home after hours clinic</td>
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</table>

**Ease of Implementation:**
- Easy
- Difficult
## 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>
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</thead>
<tbody>
<tr>
<td>March – April</td>
<td>Explore management of patients with fever, abnormal labs, nausea/vomiting after clinic hours</td>
<td>Fever need infectious work up; nausea/vomiting subjective pending on comfortable level both providers/patients/caregivers</td>
<td>To focus on management of patients with abnormal labs: mainly focus on Hb and PLT</td>
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<tr>
<td>March – April</td>
<td>Identified variation among fellows management of anemia and thrombocytopenia; drafted algorithm to triage these calls</td>
<td>Hb 6-7 managed as outpatients; Identified patient with low potassium advised ER visit</td>
<td>To focus on management of patients with needing of electrolytes supplement</td>
</tr>
<tr>
<td>May</td>
<td>Provided handout about institution protocol of management of electrolytes supplements</td>
<td>Asymptomatic low electrolytes managed as outpatient.</td>
<td>To focus on timely labs to avoid late notifications of labs</td>
</tr>
</tbody>
</table>
Materials Developed (optional)

- Fellow education on management of neutropenia prophylaxis, abnormal labs;

- Fellow education on value based care and available resources used to be part of oncology care model;
Conclusions

• Value based care

• Providers initiate quality improvement
Next Steps/Plan for Sustainability

- Continue refining overnight triage algorithm
- To identify potential underneath issues
- To arrange appropriate lectures / talks accordingly
- To present at monthly fellows meetings
## Project Title

**AIM:** Should be SMART (specific, measurable, attainable, relevant and time bound)

**TEAM:** Be sure to include both the department and names. If too many names to list, list just the departments represented
- Department 1: names
- Department 2: names
- Department 3: names

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**INTERVENTION:** Should be described in such a way that someone not familiar with the project has a clear understanding of what you did...changes you tested.

**PROJECT SPONSORS:**

**RESULTS:** Should be related to your AIM statement. Be sure to title the graph, identify the SPC chart used, label the x & y axis, include a legend

**CONCLUSIONS:** Should summarize the data in the results section, state whether or not the AIM was met. Conclusions are different than lessons learned.

**NEXT STEPS:** Describe additional plans for tests of change, how the intervention will be incorporated into standard workflow, etc