Improving the rate of universal genetic counseling for pancreatic adenocarcinoma at the Cleveland Clinic

Kanika Nair, MD and Brandie Leach, MS, LGC

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Institutional Overview

- The Cleveland Clinic Main Campus is a **1,398 bed** facility located in Northern Ohio, surrounded by 26 regional locations.

- The Taussig Cancer Institute, located on main campus, is a NCCN and NCI-designated comprehensive cancer center.

- More than **13,700** new heme/onc patients seen annually at the cancer center.

- Approximately **15-30** newly diagnosed pancreatic adenocarcinoma patients are seen per month.
# Team members

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Job Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Sponsor</td>
<td>Alok Khorana, MD</td>
<td>Vice-Chair for Clinical Services of the Taussig Cancer Institute, Director of the Gastrointestinal Malignancies Program</td>
</tr>
<tr>
<td>Team Leader &amp; Facilitator</td>
<td>Kanika Nair, MD</td>
<td>Hematology/Oncology Fellow</td>
</tr>
<tr>
<td>Core Team Member &amp; Facilitator</td>
<td>Brandie Leach, MS, LGC</td>
<td>Genetic Counselor</td>
</tr>
<tr>
<td>Team Member</td>
<td>Bassam Estfan, MD</td>
<td>GI Oncology Staff Physician</td>
</tr>
<tr>
<td>Team Member</td>
<td>Pauline Funchain, MD</td>
<td>Melanoma Department Chair, Director of Genomics</td>
</tr>
<tr>
<td>Team Member</td>
<td>Megan Kilbane</td>
<td>Director of Research</td>
</tr>
<tr>
<td>Team Member</td>
<td>Selina Sledge</td>
<td>Upper GI Patient Liaison</td>
</tr>
<tr>
<td>Team Member</td>
<td>Jennifer Bates</td>
<td>Upper GI Program Coordination</td>
</tr>
<tr>
<td>Team Member</td>
<td>Megan O’Brien, CNP</td>
<td>Outpatient Nurse Practioner</td>
</tr>
<tr>
<td>QTP Improvement Coach</td>
<td>Duncan Phillips, MBA</td>
<td>QTP Coach</td>
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</tbody>
</table>
Problem Statement

• The referral rate for genetic counseling by medical oncologists at Cleveland Clinic Main Campus for patients who are newly diagnosed with pancreatic adenocarcinoma from April 1 to June 30, 2019 was average 9.0%.

• This impacts
  • cancer screening for patients and their family
  • potential treatments available to patients
  • burnout among oncologists
### Outcome Measure

#### Baseline data summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Measure:**                              | Genetic counseling referral order  
Documentation of genetic counseling recommendation                                    |
| **Patient population:**                   | Patients with newly diagnosed pancreatic adenocarcinoma seen in medical oncology clinic. Patients who completed genetic testing prior to first oncology visit at Cleveland Clinic Taussig Cancer Center were excluded. |
| **Calculation methodology:**              | Number of patients referred to genetic counseling  
Number of patients with newly diagnosed pancreatic adenocarcinoma seen in medical oncology clinic |
| **Data source:**                          | Epic, electronic medical record system                                       |
| **Data collection frequency:**            | Weekly                                                                      |
| **Data limitations:**                     | Retrospective                                                               |
Outcome Measure

Baseline data

Cleveland Clinic Taussig Cancer Center
Rates of genetic counseling referral
(April 1 - June 30, 2019)
Aim Statement

60% of patients with newly diagnosed with pancreatic adenocarcinoma, seen by medical oncology at Cleveland Clinic Main Campus, will be referred for genetic counseling by December 2019.
We learned there are more steps and people involved than anticipated in referring patients to genetic counseling, including how the order must be placed by physicians so that schedulers are able to view the order.
We learned that there are many misconceptions about referring patients to genetic counseling.
### Process Measure

#### Diagnostic Data summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure:</td>
<td>Genetic counselor and oncologist survey</td>
</tr>
<tr>
<td>Patient population:</td>
<td>Genetic counselors and GI oncologists at Cleveland Clinic Taussig Cancer Center N = 11</td>
</tr>
<tr>
<td>Calculation methodology:</td>
<td>Number of responses</td>
</tr>
<tr>
<td>Data source:</td>
<td>Survey</td>
</tr>
<tr>
<td>Data collection frequency:</td>
<td>Once</td>
</tr>
<tr>
<td>Data limitations:</td>
<td>Oncologists not available for survey</td>
</tr>
</tbody>
</table>
Process Measure

Diagnostic Data

FISHBONE RESULTS

<table>
<thead>
<tr>
<th>Element</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>80</td>
</tr>
<tr>
<td>Time</td>
<td>50</td>
</tr>
<tr>
<td>Unclear process</td>
<td>60</td>
</tr>
<tr>
<td>Scheduling issues</td>
<td>50</td>
</tr>
<tr>
<td>Patient unclear of...</td>
<td>50</td>
</tr>
<tr>
<td>Patient referred to...</td>
<td>40</td>
</tr>
<tr>
<td>Provider unclear of benefit</td>
<td>30</td>
</tr>
</tbody>
</table>
**Countermeasures**

### Priority / Pay-off Matrix

#### Ease of Implementation

<table>
<thead>
<tr>
<th>High Impact</th>
<th>Low Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>Difficult</td>
</tr>
</tbody>
</table>

#### Countermeasures

- **Identify team member to discuss GC referral**
- **Fix the order in the smart set**
- **Have GC recommendation templated in tumor board note**
- **Create immediate triage process for patients going to hospice**
- **RN follow up with patient that GC referral placed/scheduled**
- **Myth bust costs about GC/testing**
- **Identify team member to place GC referral**
- **Create EPIC reminders & prompts for GC referral**
- **Explain referral & scheduling process to providers**
- **Tell providers about scheduling availability for same day appts and during chemo treatment**
- **Educate providers on somatic vs germline testing**
- **Educate patients on benefits/guidelines for GC**
- **Update care path**
- **Discuss process & recommendations at provider meeting**
- **Create GC fact sheet for providers**
- **Create GC fact sheet for patients**
- **Create GC fact sheet for patients**

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**ASCO Quality Training Program**
## Test of Change

### PDSA Plan

<table>
<thead>
<tr>
<th>Date</th>
<th>PDSA Description</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/19/2019</td>
<td>Change genetic counseling referral order in smart set to correct order</td>
<td>Average = 29% but not trend</td>
</tr>
<tr>
<td>10/30/2019, 10/31/2019</td>
<td>Invited speaker from Invitae at tumor board to discuss testing and cost and myth busting session with GI oncologists at department meeting</td>
<td>Average = 33% with trend</td>
</tr>
</tbody>
</table>
Outcome Measure

Change Data

Cleveland Clinic Taussig Cancer Center
Rates of genetic counseling referral
(April 1 - Nov 22, 2019)
(P-Chart 3 Sigma)

Percentage

Date

PRE

POST

0%
100%

0%
100%

4/1/2019
4/8/2019
4/15/2019
4/22/2019
5/6/2019
5/13/2019
5/20/2019
5/27/2019
6/3/2019
6/10/2019
6/17/2019
6/24/2019
8/19/2019
8/26/2019
9/2/2019
9/9/2019
9/16/2019
9/23/2019
9/30/2019
10/7/2019
10/14/2019
10/21/2019
10/28/2019
11/4/2019
11/11/2019
11/18/2019

CL, 9%
UCL, 83%
GOAL, 60%
LCL, 0%

PDSA

LCL, 0%
CL, 33%

LCL, 0%
CL, 9%

0%

20%

40%

60%

80%

100%

PRE

POST

PDSA

PDSA
### Next steps

#### Sustainability Plan

<table>
<thead>
<tr>
<th>Next Steps</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create information sheet for RN navigator to distribute to all new diagnosed patients with pancreatic adenocarcinoma</td>
<td>Brandie Leach</td>
</tr>
<tr>
<td>Individually email all providers (physicians, NPs, PAs, RNs) about recommendations for genetic counseling and referral process</td>
<td>Kanika Nair</td>
</tr>
<tr>
<td>Discuss adding genetic counseling as a quality measure for GI oncology group</td>
<td>Kanika Nair</td>
</tr>
</tbody>
</table>
Conclusion

- The process for referring patients to genetic counseling is more complicated than anticipated, involving more people than anticipated.

- Through the fishbone process, barriers of cost and patient/provider education were identified.

- While the goal of 60% referral rate by December 2019 was not reached, we were able to improve the referral rate to 33% through 2 PDSA cycles with more sustainability.