ASCO’s Quality Training Program

Pancreatic Cancer Biobank

Mitchell Cancer Institute / The University of South Alabama

Moh’d Khushman, M.D
Meredith Jones, MS, BSN, RN, BA

Date: 9/12/2018
Institutional Overview

Medical Oncologists (N=9)
Nurse Practitioners (N=5)
Radiation Oncologists (N=3)

As of 2011, the population within a 60-mile (100 km) radius of Mobile is 1,262,907

Academic institution
University-based
Bio-banking blood specimens from patients with cancer is instrumental to research conducted by basic scientists and clinicians. Only 7% of patients with pancreatic cancer (PC) did get their blood bio-banked at MCI. This negatively impacts grants funding and efforts to reach milestones necessary for NCI designation.

What? 7% of patients with PC get their blood bio-banked  
Who? Research team (Basic scientists and medical oncologists)  
Where? Mitchell Cancer Institute  
When? July 2017 to June 2018  
Why? Bio-banking blood specimen from patients with cancer is instrumental to research conducted by basic scientists and clinicians. Grants. NCI designation.
Leader: Moh’d Khushman, M.D
Facilitator: Meredith Jones, MS, BSN, RN, BA

Medical Oncology Clinic: William Taylor, M.D; Sachin Pai, M.D; Ashish Mannie, M.D; Sanjyot Bhadkamkar, NP; Jazzmen Mamuscia, R.N; Brumeatta Grey, M.A

Basic Science: Ajay Singh, PhD; Seema Singh, PhD; Steven McClellan

Lab: Elizabeth Renee Dees

IT support: Cindy Nelson

Regulatory: Winona Blount; Pam Horner; Milton Pierson
Current Process Map (Flow Chart)

Patient with PC

Clinic Visit

Biobank Available

Main Campus

Consent by MD

Biobanking already done

No

Right tubes

No

Blood volume adequate

No

Bio-banking not performed

Yes

Considered for bio-banking

Yes

Blood Collection by RN or MA

Yes

Patient Considered Bio-banked

No

Patient de-identification and coding by Biobank personnel

No

Bio-banking not performed

Blood discarded and team is notified

Blood volume adequate

No

Right tubes

Consent by MD

Yes

Bio-banking already done

No
Only 7% of Pancreatic patients blood specimens were bio-banked at MCI between July 2017 and June 2018.
Diagnostic Data

- Observation
- Feedback after a meeting
- Interview with physicians, nurses, lab personnel, IT team and regulatory team
- Review of EMR and IT
Between 10/2/2017 to 8/8/2018, 57 patients with PC were seen at MCI. 4 out of 57 (7%) patients had their blood bio-banked and 1 out of 57 (2%) patient refused bio-banking.

12 out of 57 (21%) patients were seen at our satellite site. No bio-banking is available there.

Bio-banking through the biobank protocol was put on hold by administration on 3/16/2018. Since then 9 out of 57 (16%) patients were seen and were not bio-banked.

36 patients were seen at MCI (not satellite) and were seen prior to 3/16/2018. Of those only 5 were considered for bio-banking. 31 out of 57 (54%) were not considered for bio-banking.
>50% of patients with pancreatic cancer seen at MCI between 10/1/2018 to 12/1/2018 will have their blood bio-banked
Measures

- **Measure**: The percentage of patients at MCI with pancreatic cancer (PC) who get their blood bio-banked

- **Patient population**: Patients with pancreatic cancer seen at MCI
  - Exclusions (if any): none

- **Calculation methodology**:
  - # of considered patients/Patients with PC seen in MCI
  - # of consented patients/patients with PC seen in MCI
  - # of orders to collect blood/Patients with PC seen in MCI
  - # of collected blood/patients with PC seen in MCI
  - # of de-identified specimens/patients with PC seen in MCI
  - # of stored/logged specimens/patients with PC seen in MCI

  - Numerator & Denominator (if applicable)

- **Data source**: EMR/IT

- **Data collection frequency**: Weekly

- **Data quality (any limitations)**:
Effort/Impact

- EMR Alert
- Separate IRB
- Training
- Courier Service
- Social Media Ad
- Collaboration with other institutions
- 1:1 meeting with MD
- Periodic email communication
- Staff Meeting at satellite site
- 1000000 $ Bonus

Impact

Low

Effort

Low

High
Intervention

• EMR Alert
• Separate IRB and Consent submission
• Meeting with oncologists and nurses
• Courier utilization for satellite clinic
• Blood collection and de-identification clarification
• Training
Measures (10/24-11/15)

- Measure: The percentage of patients at MCI with pancreatic cancer (PC) who get their blood bio-banked 20/24 (83%)

- Patient population: Patients with pancreatic cancer seen at MCI: 24
  - Exclusions (if any): none

- Calculation methodology:
  ✓ # of considered patients/Patients with PC seen in MCI: 20/24 (83%)
  ✓ # of consented patients/patients with PC seen in MCI: 20/24 (83%)
  ✓ # of orders to collect blood/Patients with PC seen in MCI: 20/24 (83%)
  ✓ # of collected blood/patients with PC seen in MCI: 20/24 (83%)
  ✓ # of de-identified specimens/patients with PC seen in MCI: 20/24 (83%)
  ✓ # of stored/logged specimens/patients with PC seen in MCI: 20/24 (83%)

- Numerator & Denominator (if applicable)

- Data source: EMR/IT

- Data collection frequency: Once on 11/15/2018

- Data quality (any limitations): Excellent (Inaccurate coding)
### Statistical Analysis

<table>
<thead>
<tr>
<th></th>
<th>Outcome 1</th>
<th>Outcome 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>4</td>
<td>53</td>
<td>57</td>
</tr>
<tr>
<td>Group 2</td>
<td>20</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>57</td>
<td>81</td>
</tr>
</tbody>
</table>

**Fisher’s exact test**

The two-tailed P value is less than 0.0001

The association between rows (groups) and columns (outcomes) is considered to be extremely statistically significant.