ASCO's Quality Training Program

Pancreatic Cancer Biobank

Mitchell Cancer Institute / The University of South Alabama

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ASCO Quality
Training Program

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

Problem Statement

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.

Team Members

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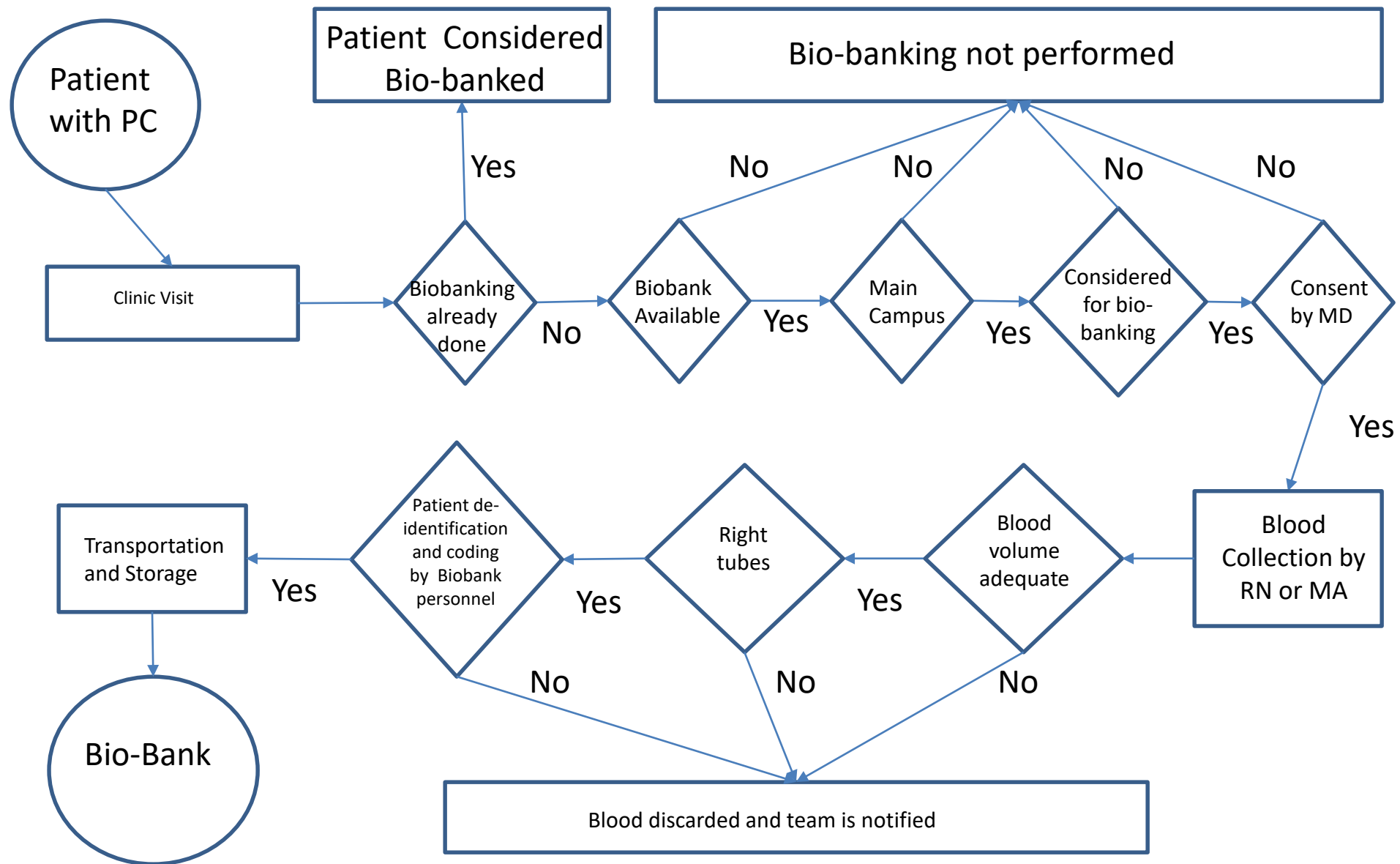
Basic Science: Ajay Singh, PhD; Seema Singh, PhD; Steven McClellan

Lab: Elizabeth Renee Dees

IT support: Cindy Nelson

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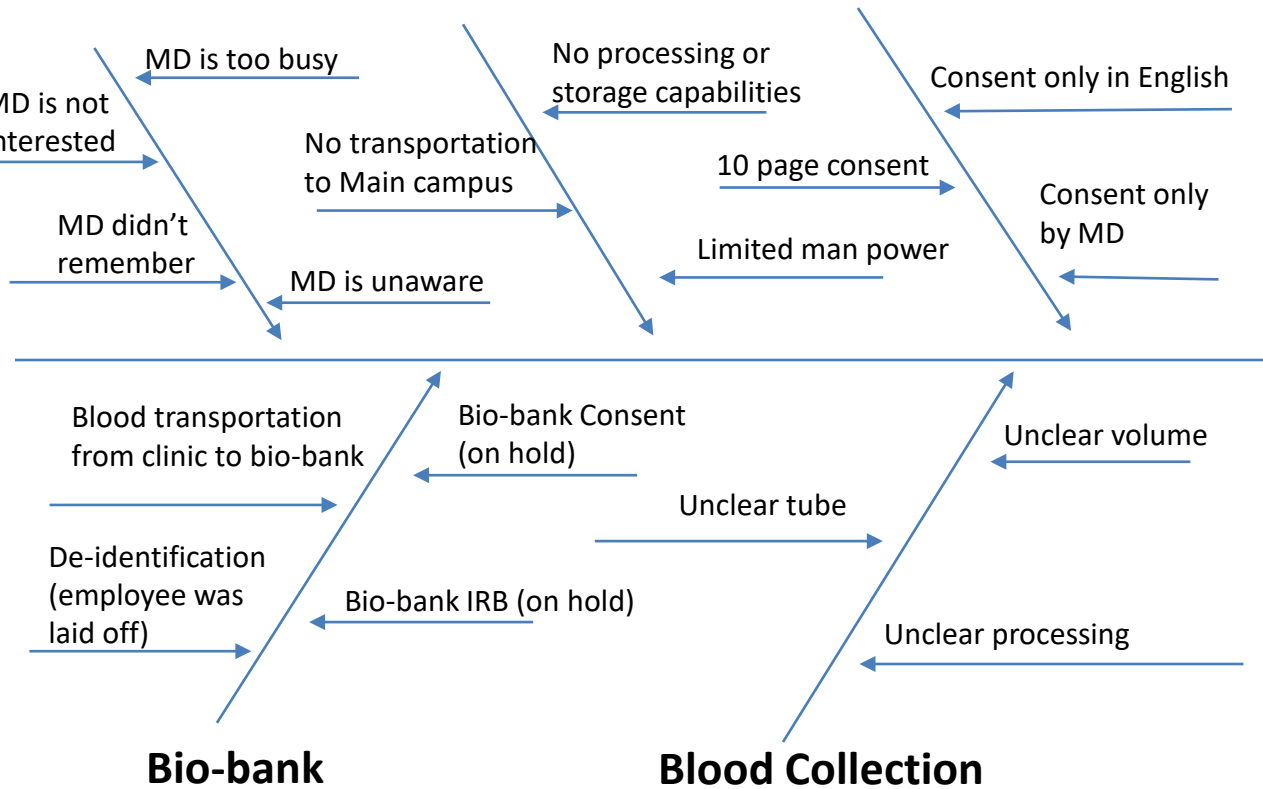
Current Process Map (Flow Chart)

Patient with PC → Clinic Visit → **Biobanking already done**
- Yes → Patient Considered Bio-banked
- No → **Biobank Available**
  - No → Bio-banking not performed
  - Yes → **Main Campus**
    - No → Bio-banking not performed
    - Yes → **Considered for bio-banking**
      - No → Bio-banking not performed
      - Yes → **Consent by MD**
        - No → Bio-banking not performed
        - Yes → Blood Collection by RN or MA → **Blood volume adequate**
          - No → Blood discarded and team is notified
          - Yes → **Right tubes**
            - No → Blood discarded and team is notified
            - Yes → **Patient de-identification and coding by Biobank personnel**
              - No → Blood discarded and team is notified
              - Yes → Transportation and Storage → Bio-Bank

Cause & Effect Diagram

Consideration for bio-banking by MD
- MD is too busy
- MD is not interested
- MD didn't remember
- MD is unaware

Satellite Facilities (20 + miles from MCI)
- No processing or storage capabilities
- No transportation to Main campus

Consent
- Consent only in English
- 10 page consent
- Consent only by MD
- Limited man power

Bio-bank
- Blood transportation from clinic to bio-bank
- De-identification (employee was laid off)
- Bio-bank Consent (on hold)
- Bio-bank IRB (on hold)

Blood Collection
- Unclear volume
- Unclear tube
- Unclear processing

Only 7% of Pancreatic patients blood specimens were bio-banked at MCI between July 2017 and June 2018.

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Diagnostic Data

- Observation

- Feedback after a meeting

- Interview with physicians, nurses, lab personnel, IT team and regulatory team
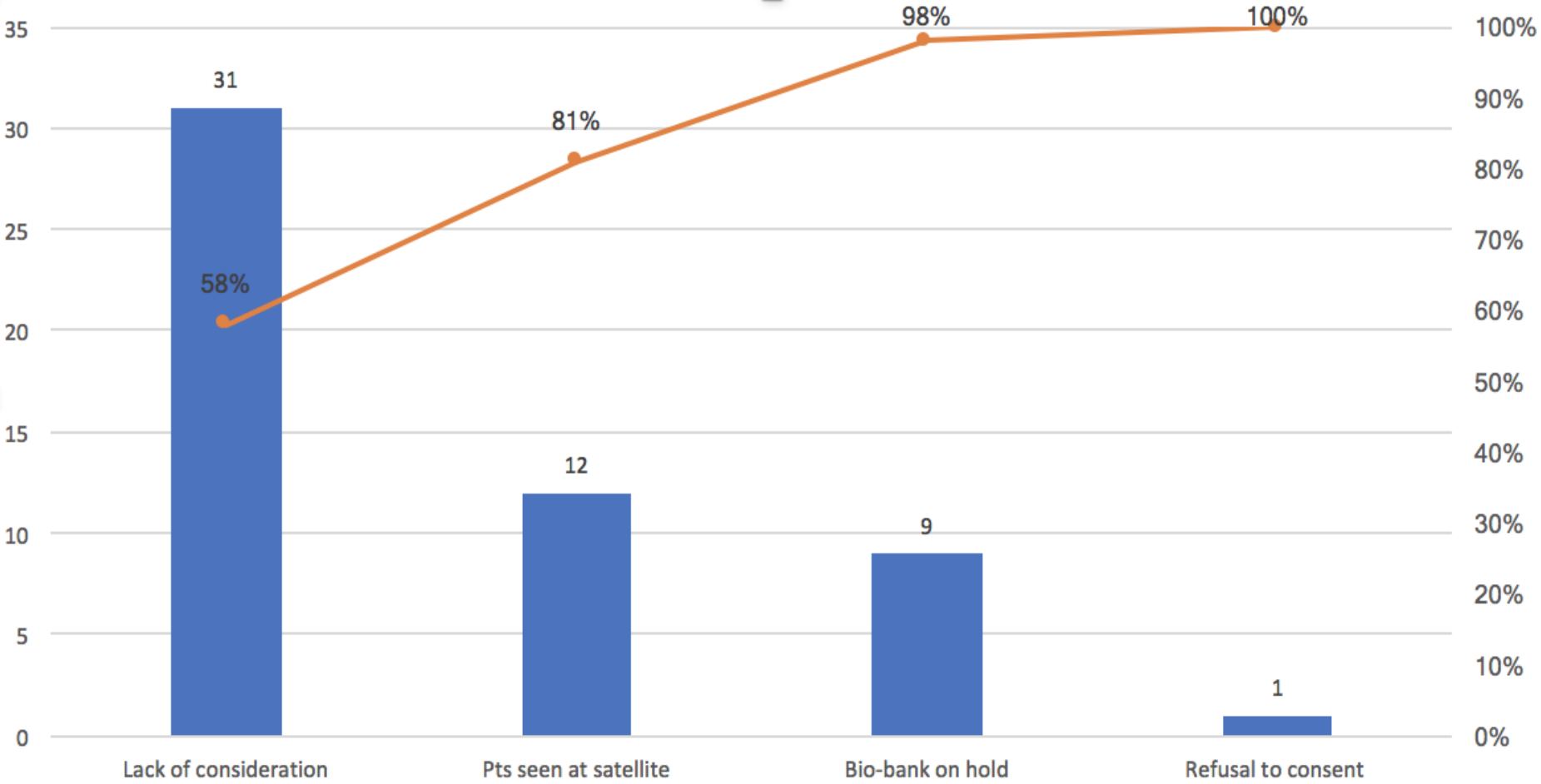
- Review of EMR and IT

Baseline Data

- 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.

Pareto Chart

Aim Statement

>50% of patient 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
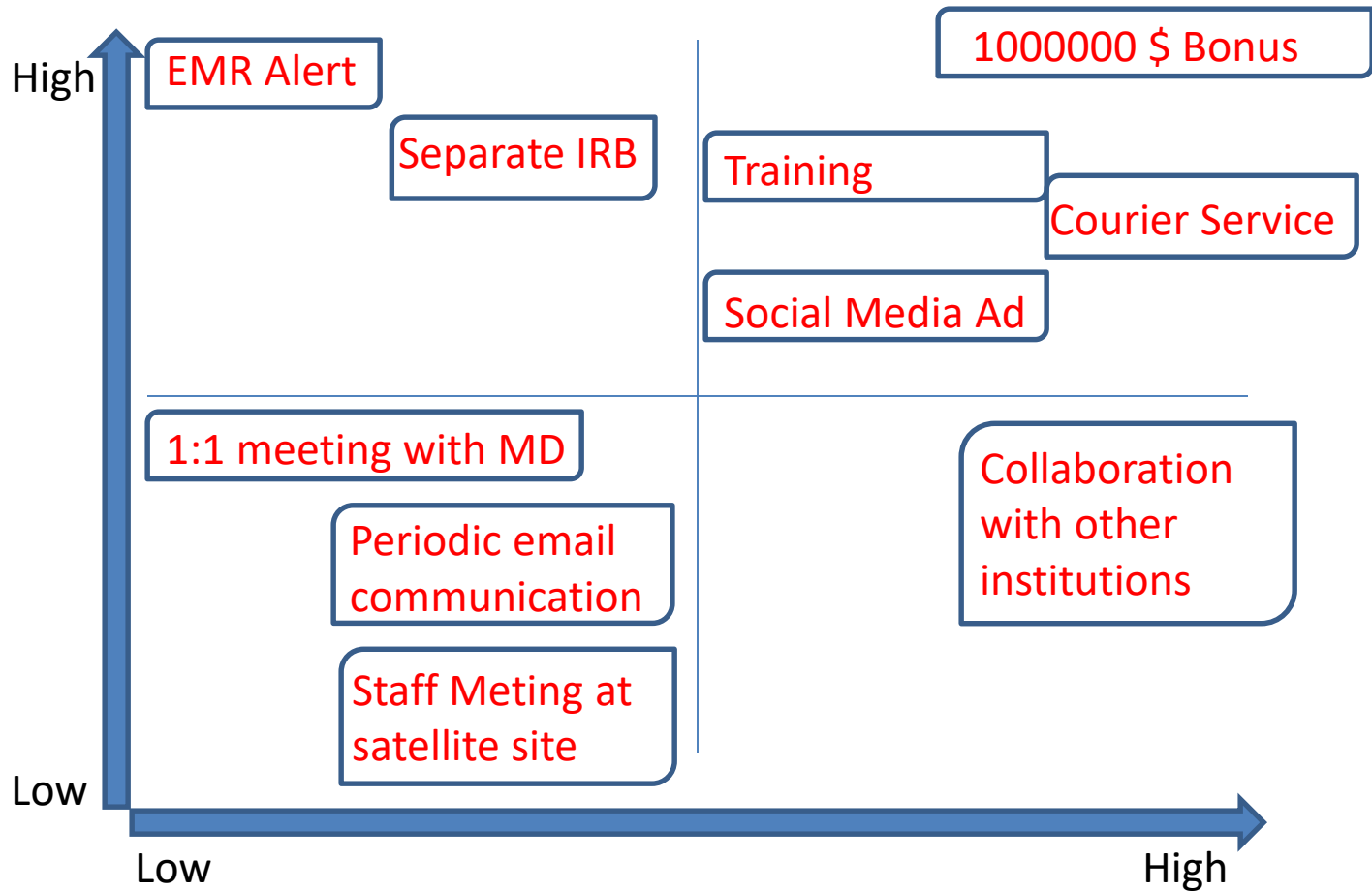 -Exclusions (if any): none

- 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

Impact — High / Low (vertical axis)

Effort — Low / High (horizontal axis)

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

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

	Outcome 1	Outcome 2	Total
Group 1	4	53	57
Group 2	20	4	24
Total	24	57	81

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.