

Project Title: Patient Navigation in Harris Health System Lung Cancer Patients

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Institutions: Harris Health System & Baylor College of Medicine

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Problem Statement

- Harris Health System (HHS) is an integrated safety net health system, and the third largest safety net system in the country
- The Baylor College of Medicine Dan L Duncan Comprehensive Cancer Center, The University of Texas MD Anderson Cancer Center and HHS partner to care for the underserved cancer patients in Harris County
- New Lung Cancer patients often have delays from their diagnosis to treatment initiation.

Institutional Overview

**HARRISHEALTH
SYSTEM**



DAN L DUNCAN
COMPREHENSIVE
CANCER CENTER



THE UNIVERSITY OF TEXAS
**MD Anderson
Cancer Center**
Making Cancer History[®]

Baylor College of Medicine-MD Anderson-Harris Health
Cancer Patient Navigation (CANTO) Collaborative

Team Members

QTP Leaders

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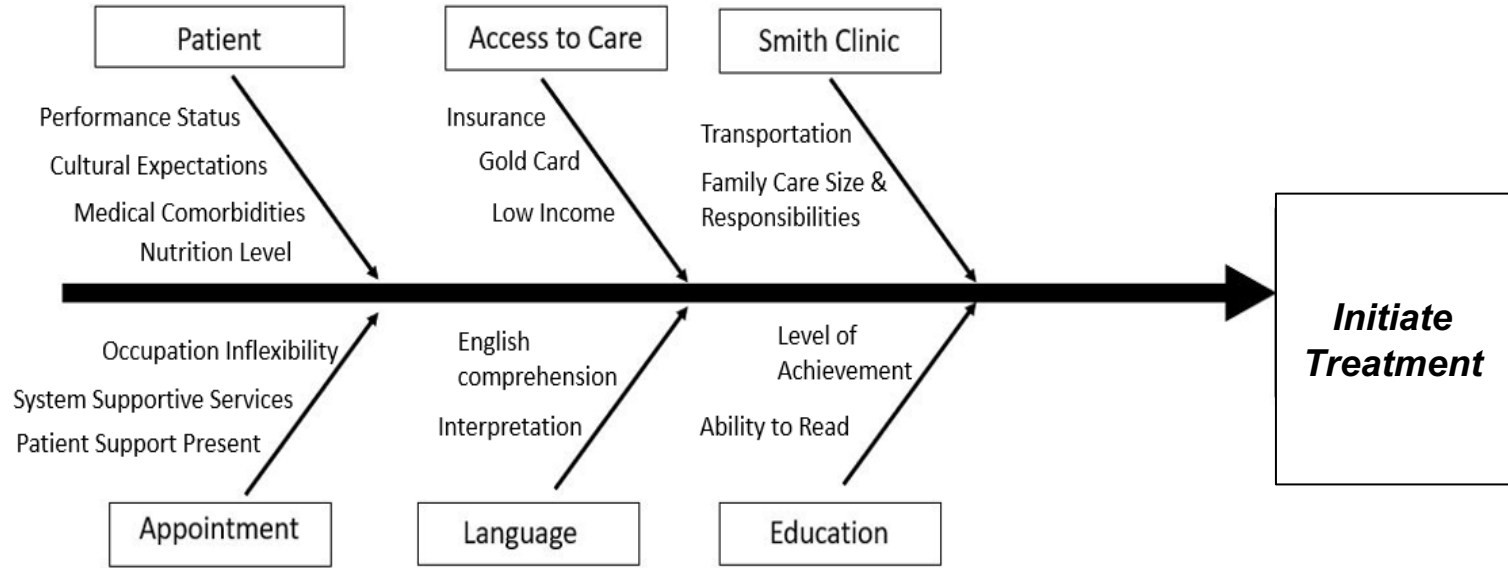
Process Map



Our initial process started by mapping out the steps it takes for a new cancer patient to transition from diagnosis to treatment initiation

As you can see, The process for an either established HHS patient or new to system patient to start treatment for cancer is multi-step.

Cause & Effect Diagram

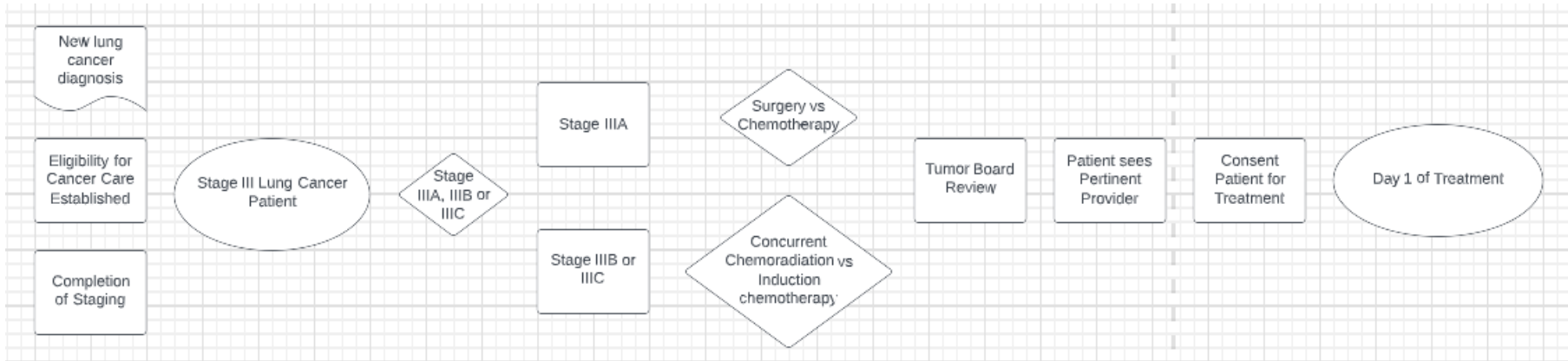


Diagnostic Data

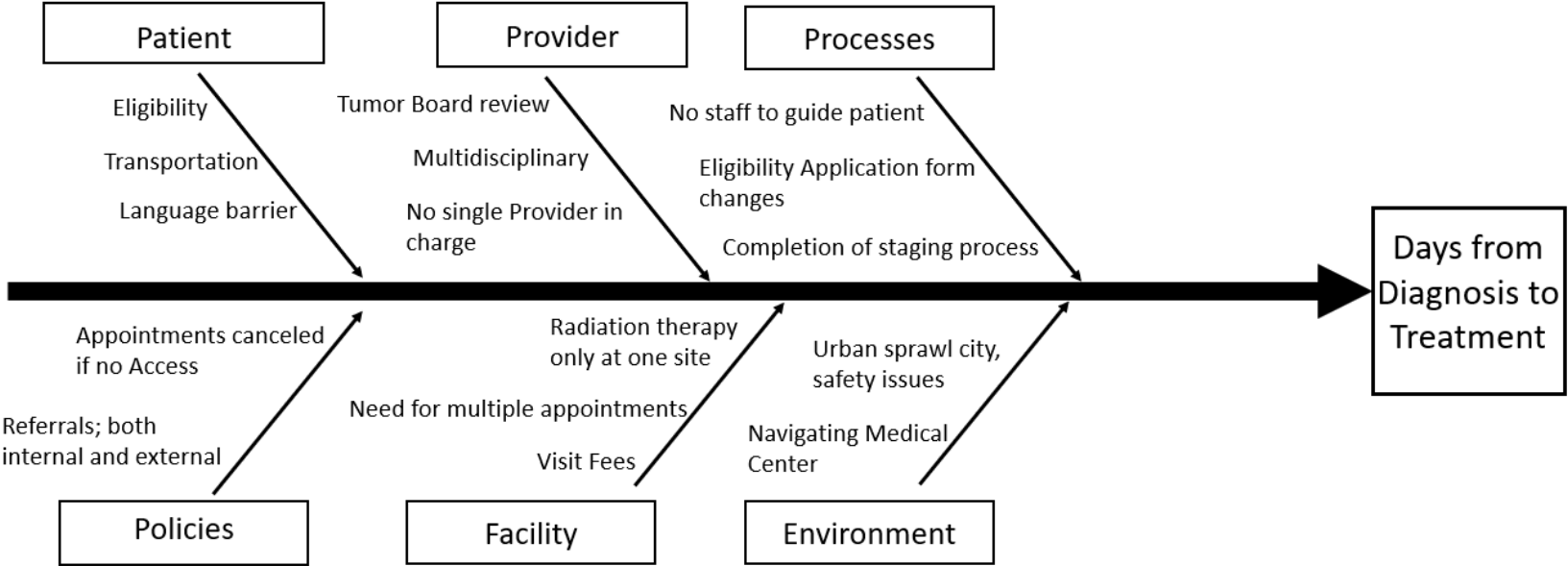
Table 1. Harris Health lung cancer patients at Ben Taub Hospital, 2020.

Stage	Number (total n=149)	Days to treatment, average (range)	Days to treatment, average (range)
		Diagnosed outside of Harris Health	Diagnosed within Harris Health
IA, IB	19	142 (99 – 175)	98 (0-190)
2A, 2B	5		
3A, 3B, 3C	24	68 (10 – 180)	71 (4 – 256)
4	4		
4A 4B	89	29 (9 – 96)	36 (4-163)
Unknown	8		

Process Map



Cause & Effect Diagram



Aim Statement

Overarching Aim: Improve the timely delivery of high-quality care for patients diagnosed with lung cancer

SMART Aim: To decrease the days from cancer diagnosis to treatment initiations in stage III lung cancer patients by 25% over 24 months

Measures

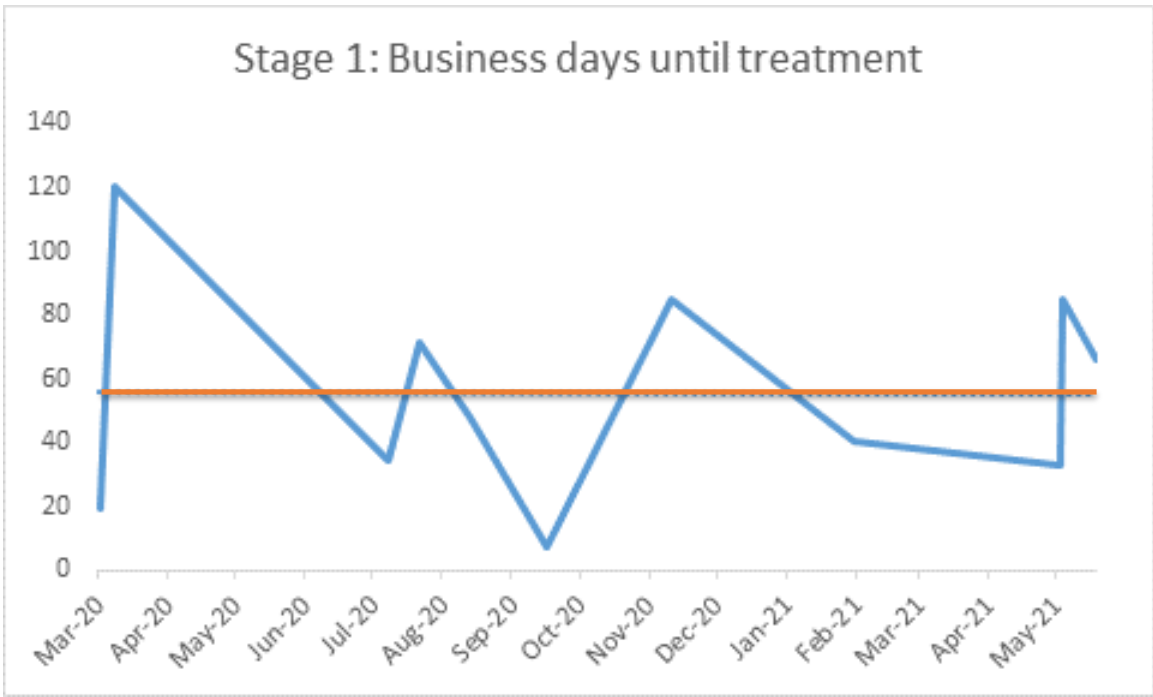
- Measure: **Days from Lung Cancer Diagnosis to Treatment Initiation** – *Broad Definition*
- Patient population: New Stage III Lung Cancer Patients
-Exclusions (if any)
- Calculation methodology: Online Business Day Calculator
-Numerator & Denominator (if applicable)
- Data source: Harris Health Cancer Registry
- Data collection frequency: Bi-Weekly
- Data quality(any limitations): Manual Data Entry and Calculation

Measures

Grant Goals & Objectives	Grant Metric	Definition	AONN Metric	AONN Definition	ACS Grant Required Metric	Routinely Captured?	Measurement/Variable
<p>Days from Diagnosis to Treatment by 25% over 24 months 80->60days</p> <ul style="list-style-type: none"> - how do we define Diagnosis? - imaging vs pathology? - define Treatment <p>-xrt simulation vs start</p> <p>- first infusion</p>	<p>Diagnosis (pathology) to Initial Treatment Average* (Goal 1)</p>	<p>Pathologic diagnosis to Treatment start / any modality (business days)</p>	<p>Diagnosis to Initial Treatment*</p>	<p>Date pathology results delivered to initial modality / date of first treatment (business days)</p>	<p>6/8</p>	<p>No, and unclear process</p>	<p>Date pathology results delivered</p> <p>Treatment date</p> <p>IT generate variable of business days</p>

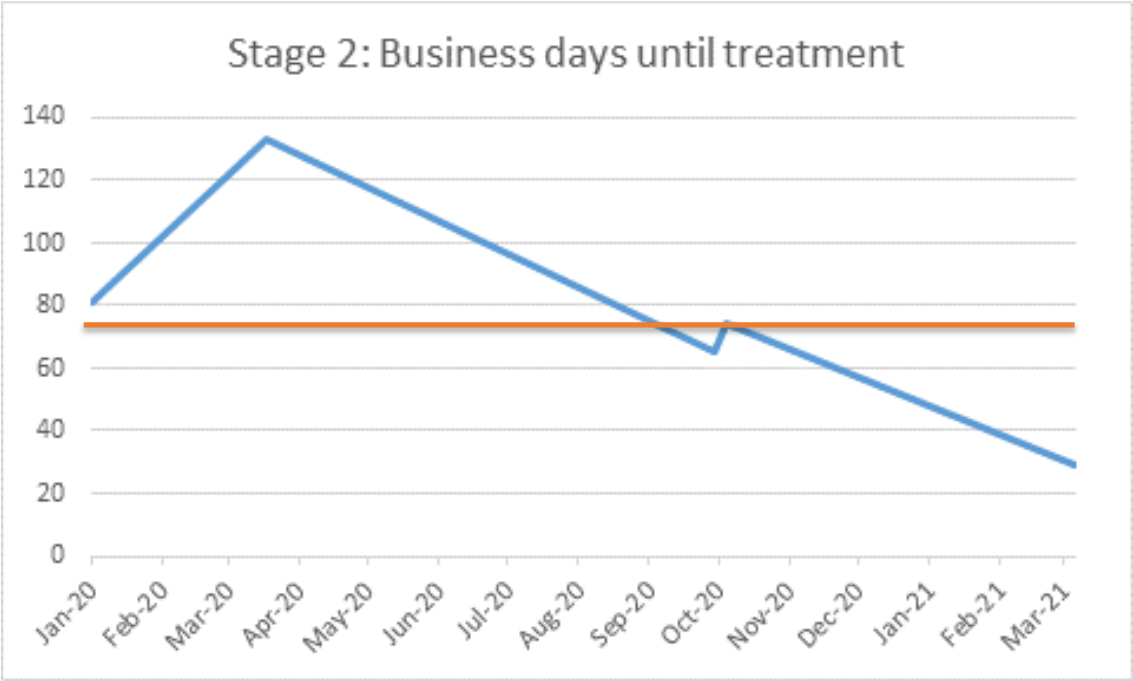
Baseline Data

Chart 1. Stage I Lung Cancer Patients Days from Initial Diagnosis to Treatment Initiation
Average = 56 days



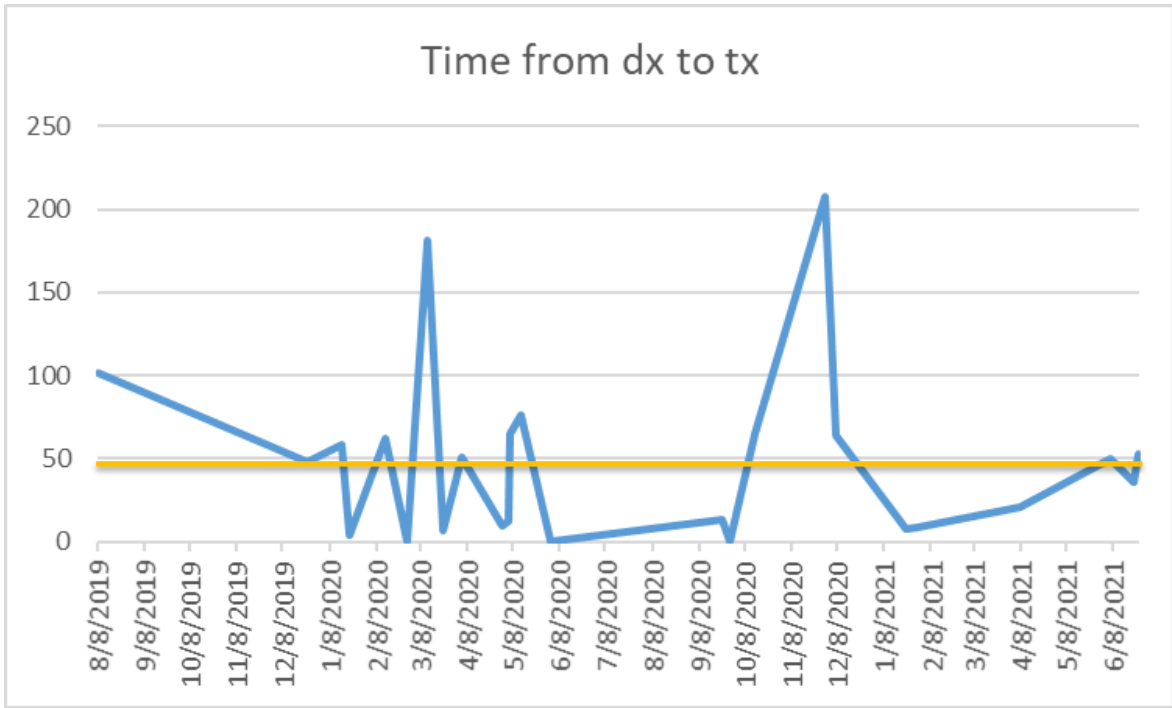
Baseline Data

Chart 2. Stage II Lung Cancer Patients Days from Initial Diagnosis to Treatment Initiation
Average = 76 days



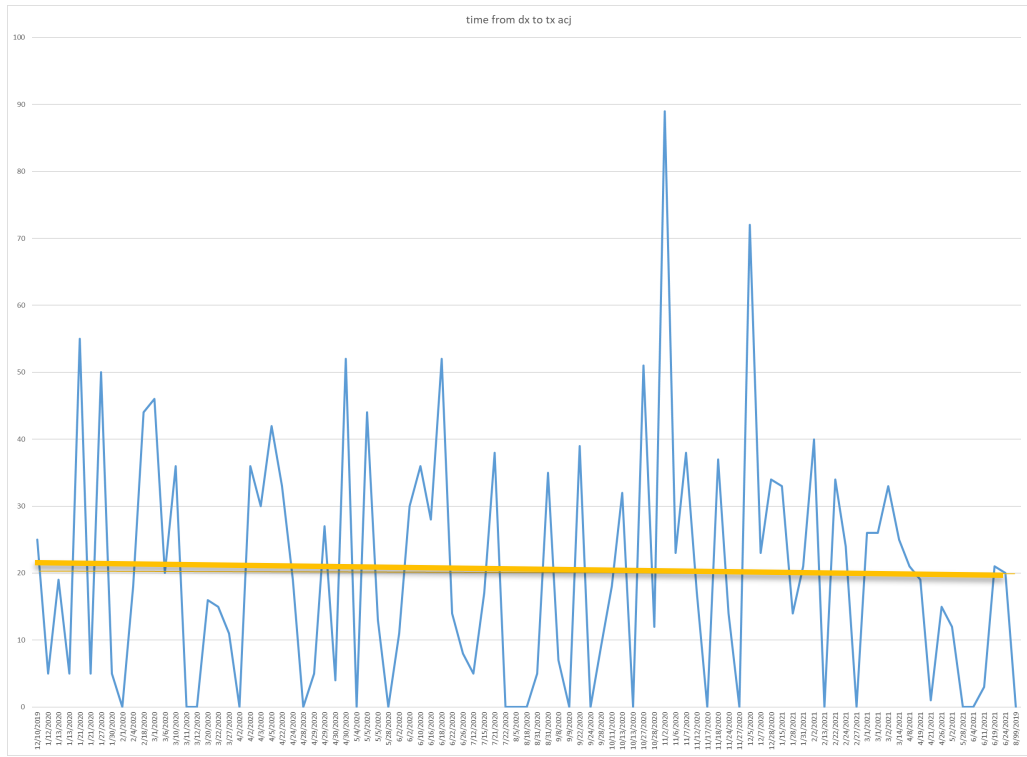
Baseline Data

Chart 3. Stage III Lung Cancer Patients Days from Initial Diagnosis to Treatment Initiation
Average = 48 days



Baseline Data

Chart 4. Stage IV Lung Cancer Patients Days from Initial Diagnosis to Treatment Initiation
Average = 20 days



Prioritized List of Changes (Priority/Pay –Off Matrix)

Impact	High	Partner with Cancer Registry – obtain baseline data and data as baseline or check moving forward	Develop Tracking Mechanism for patients to measure impact of changes Incorporate Patient Navigator to Ensure Data Collection -> publication
	Low	Thoracic Tumor Board review of new cases (done prior to QTP and effects not measured)	Analyze Cancer Registry Data – completed but needs more depth, what reasons specifically contributed to increased days?
		Easy	Difficult
Ease of Implementation			

PDSA Plan (Test of Change)

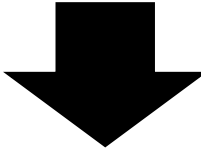
Date of PDSA Cycle	Description of Intervention	Results	Action Steps
July – August 2022	<ul style="list-style-type: none"> a. Revised Patient Navigation spreadsheet to apply to new lung cancer patients b. Presented to Cancer Committee; further updates made 	<ul style="list-style-type: none"> a. Data collection items personalized for lung cancer patients b. Cancer Committee assisted with IT partnership to help auto-populate 	Plan to implement the revised spreadsheet for background data collection and then revise again as needed
September-October, 2022	<ul style="list-style-type: none"> a. Redesign and implement process for using Navigation Spreadsheet 	<ul style="list-style-type: none"> a. Dedicated navigator needed for lung patients b. Identified changes for next PDSA cycle 	<ul style="list-style-type: none"> a. Dedicated lung navigator needed; hiring process continued b. Partnership with IT continues to develop workbench to collect data c. Process updates planned for (date)

PDSA Plan (Test of Change)

A1

DATE REFERRED TO NAVIGATOR

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
DATE REFERRED TO NAVIGATOR	Status of Patient (new, open, closed)	OUTSIDE REFERRAL- NAME OF FACILITY	MRN	NAME	DATE OF BIRTH	Zip Code	AGE	GENDER	ETHNIC	PREFERRED LANGUAGE	Tobacco Use	PAVILION (PTL)	FINANCIAL CLASS (copy&paste)	ELIGIBILITY DATES (copy&paste)	ELIGIBILITY confirmed (PN action)	Financial Eligibility Determination (PN action) Pathology date - Access	Patho Dat



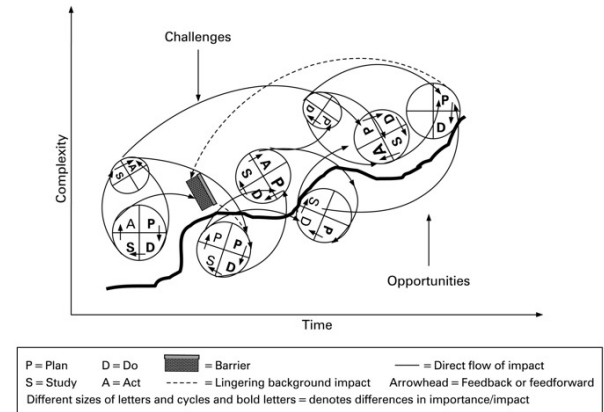
V95

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Last Name	First Name	Medical Record Number	Primary Site	Date of Initial Diagnosis	Class of Cancer	Date of 1st Cont	Date of 1st Posi	Date of First Surgery	Text - Surgery	Text - Radiation Therapy	Text - Chemotherapy	Text - Immunotherapy	Text - Other Treatment	AJCC Clinical Stage	AJCC Pathologic Stage	Vital Status	Date of Treatment based on Excel surgeon	Date of Treatment based on Excel to chemo	Date of Treatment based on Excel to radiatio	Time from biopsy to business da	time from dx to tx acj	Treat

Conclusions

- The variability we measured demonstrates that process improvement will help patients from diagnosis through treatment planning and initiation
- Initial PDSA cycles streamlined the process for data collection
- Additional partnership with our stakeholder groups (patients, clinicians, staff) is needed to elucidate additional reasons for variability and to identify additional process improvements

Revised conceptual model of rapid cycle change.



A M Tomolo et al. Qual Saf Health Care 2009;18:217-224

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Conclusions

- More research and infrastructure is needed in medically underserved communities to elucidate the reasons our patients have difficulty with this process
- Thank you to the ASCO QTP!
- Thank you to our Coach Dr. Grace Campbell for sticking with us as we worked through our project to lay an infrastructure of QI
- Look forward to sharing our future work with ASCO to show that improvements in safety net populations are worthwhile and attainable

Next Steps/Plan for Sustainability

- Work with American Cancer Society (ACS) Learning Community
 - Share best practices for Patient Navigation
- Incorporation of a Patient Navigator into the Oncology Care Team

Thank You