ASCO's Quality Training Program

Project Title: **Improving molecular/cytogenetics documentation in EPIC for tumors**

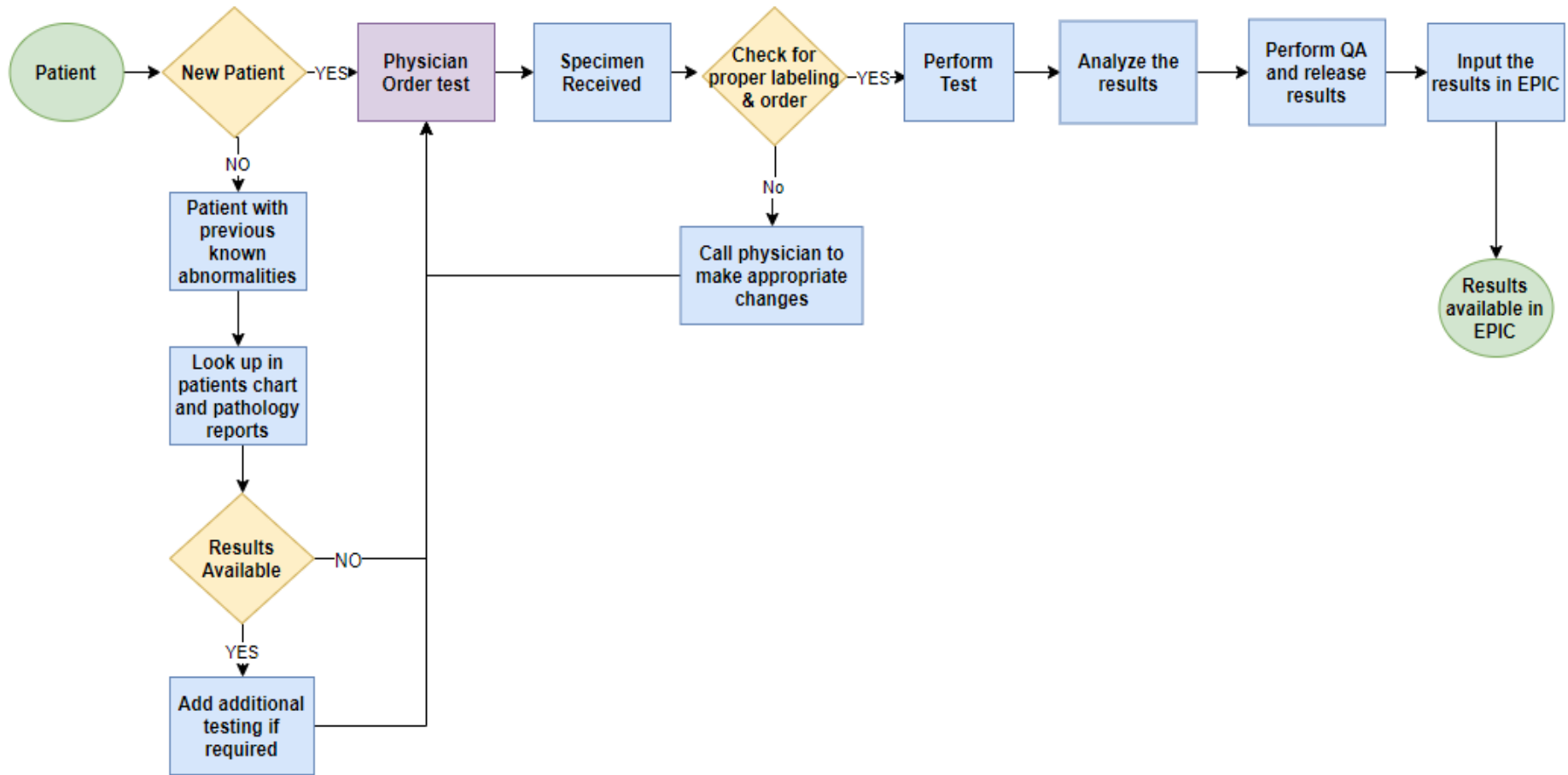Presenters: COH teams 1 and 5

Institution: City of Hope

Date: 6/28/2019

Problem Statement

Providers spend significant amount of time 1hour (7 min per patient and 9 patients per day) to search for molecular data in EPIC, which delays the optimized molecular guided treatment and reduces the efficiency of provider's practice.

Process Map

Institutional Overview

City of Hope is a NCI-designated comprehensive cancer center. City of Hope has 15 community practices and 355 providers integrated with the main campus and covers around 17 million people.

Team Members

City of Hope team 1
- **Dan Zhao, M.D., Ph.D.**
Hematology/Oncology fellow
- **Addie Hill, M.D.**
Hematology/Oncology fellow
- **Annice Hsiao-Wei Chen, M.S.**
Molecular Clinical Variant Curator
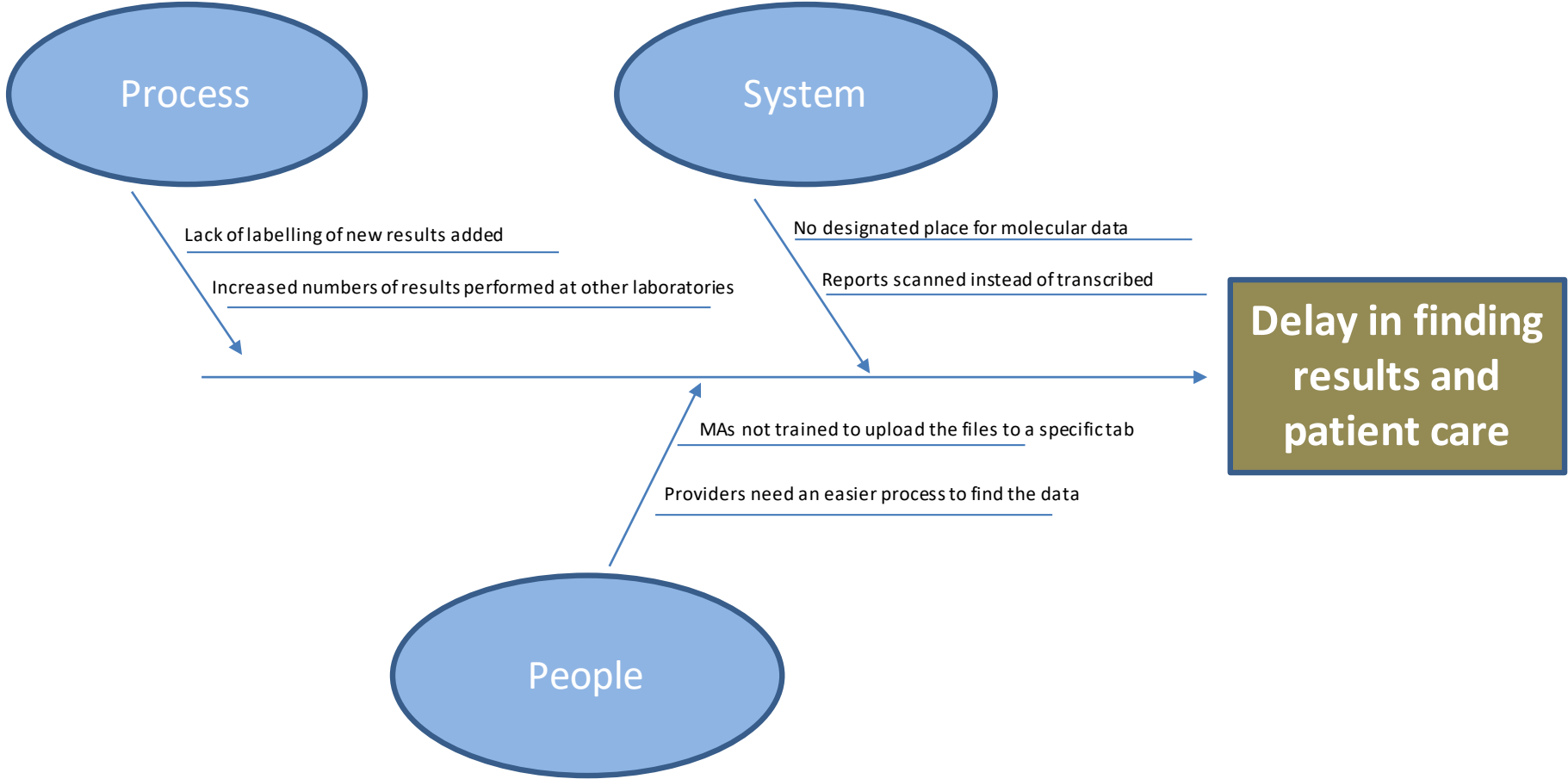Clinical Molecular Diagnostic Lab

City of Hope team 5

- **Feras Ally, M.D.**
Hematopathology fellow
- **Amar Jariwala, M.D., M.S.P.H.**
Hematopathology fellow
- **Idoroenyi Amanam, M.D.**
Hematology/Oncology fellow

EPIC enhancement team:
Adrienne Paredes
Nirav Patel

Cause & Effect Diagram

Process

Lack of labelling of new results added

Increased numbers of results performed at other laboratories

System

No designated place for molecular data

Reports scanned instead of transcribed

Delay in finding results and patient care

MAs not trained to upload the files to a specific tab

Providers need an easier process to find the data

People

Diagnostic Data

5-question survey about molecular data in EPIC

➢ **What is your job role?**

➢ **How many patients per day you need to search for molecular data?**

➢ **How long it takes to get the data?**

➢ **How many clicks ?**

➢ **Your suggestion?**

Aim Statement

Providers spent average ~ 1hour (7 min per patient and 9 patients per day) per day to search for molecular data in EPIC. Our goal is to reduce the time by 30% to around 40 min per day (4-5 min per patient) to search for molecular data in EPIC.

Measures

- Measure: **The time spent in searching for molecular data .**

- Patient population: **Patients with tumors.**

- Calculation methodology: **Filling an online survey.**

- Data source: **Providers and clerical staff.**

- Data collection frequency: **Every 3 months.**

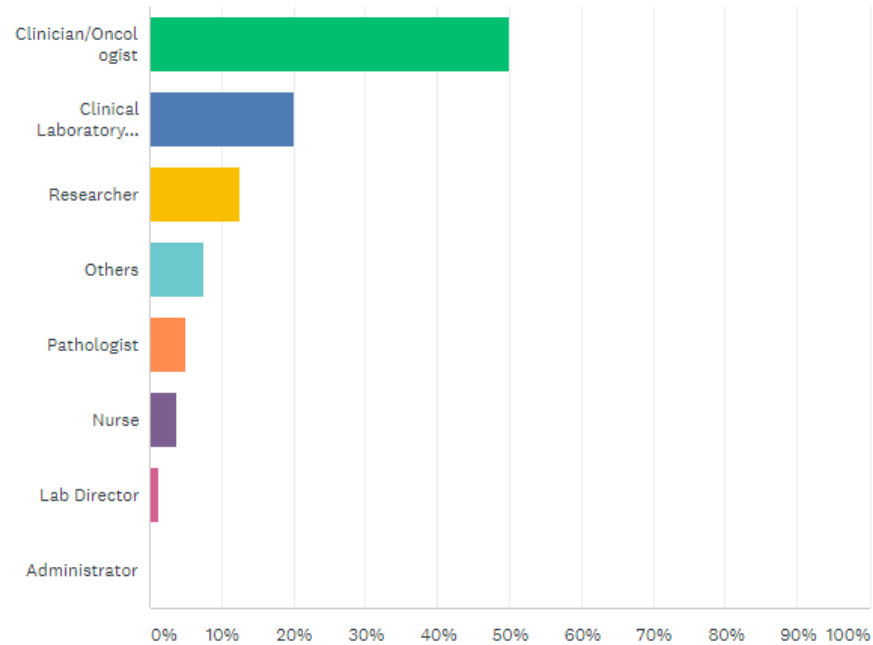- Data quality(any limitations): **Responses are still subjective.**

Baseline Data

- 80 responses to molecular data in EPIC survey

- 5 simple questions.

- Survey was sent on 2/28, 3/14 and 3/15. 80 responses by 4/1.

Question 1.

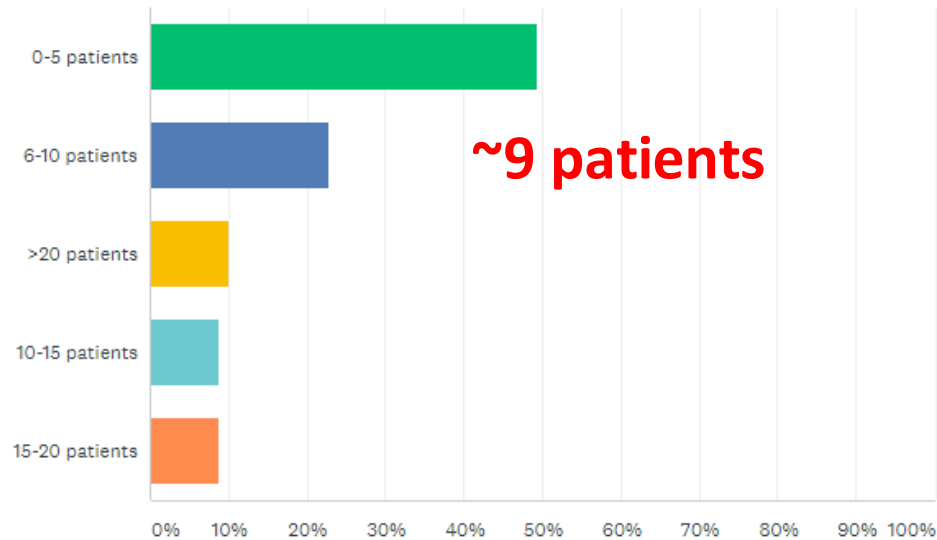## What is your job role?

Answered: 80   Skipped: 0

ANSWER CHOICES	RESPONSES	
Clinician/Oncologist	50.00%	40
Clinical Laboratory Scientist (CLS)/Lab Technician	20.00%	16
Researcher	12.50%	10
Others	7.50%	6
Pathologist	5.00%	4
Nurse	3.75%	3
Lab Director	1.25%	1

Question 2.

How many patients per day on average do you need to look up molecular results in EPIC?
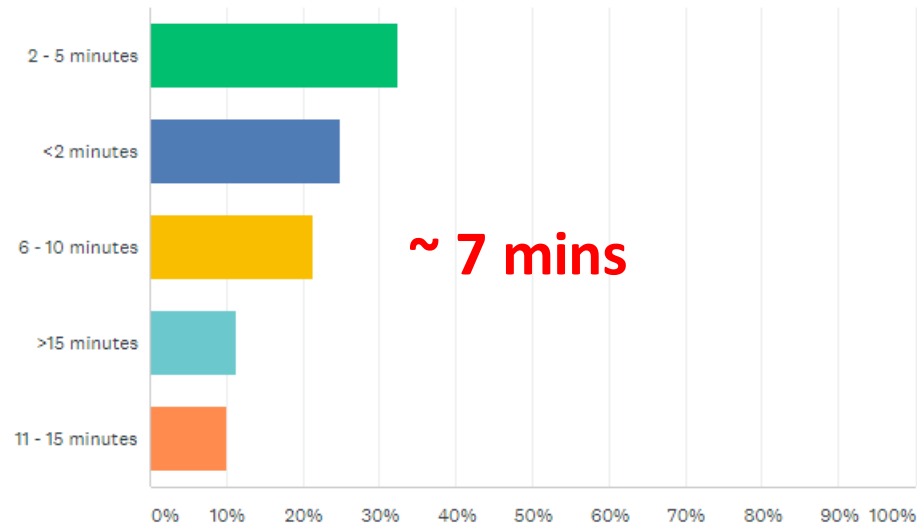
Answered: 79   Skipped: 1

~9 patients

ANSWER CHOICES	RESPONSES	
0-5 patients	49.37%	39
6-10 patients	22.78%	18
>20 patients	10.13%	8
10-15 patients	8.86%	7
15-20 patients	8.86%	7
TOTAL		79

Question 3.

How much time on average does it take you to find the molecular/cytogenetics results per patient in Epic?
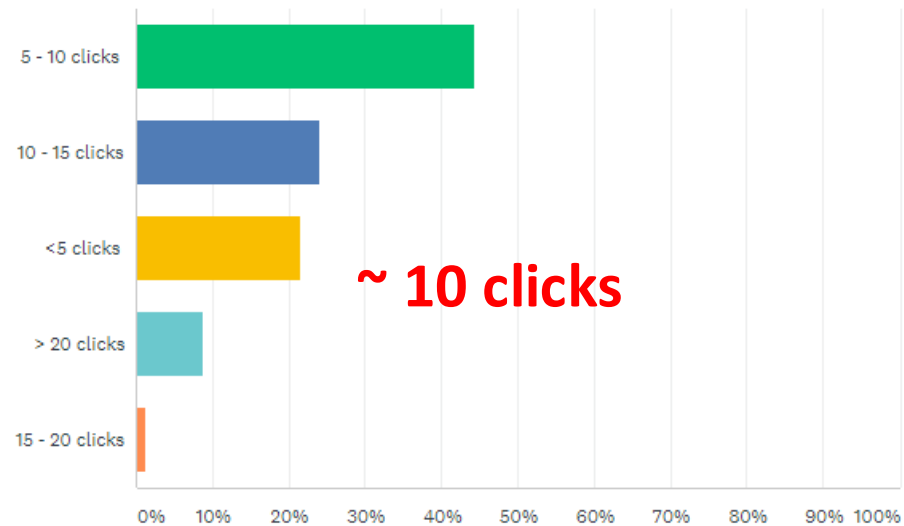
Answered: 80   Skipped: 0

~ 7 mins

ANSWER CHOICES	RESPONSES	
▼ 2 - 5 minutes	32.50%	26
▼ <2 minutes	25.00%	20
▼ 6 - 10 minutes	21.25%	17
▼ >15 minutes	11.25%	9
▼ 11 - 15 minutes	10.00%	8
TOTAL		80

Question 4.

How many clicks do you make to get the molecular/cytogenetics results in Epic?

Answered: 79   Skipped: 1

~ 10 clicks

ANSWER CHOICES	RESPONSES	
5 - 10 clicks	44.30%	35
10 - 15 clicks	24.05%	19
<5 clicks	21.52%	17
> 20 clicks	8.86%	7
15 - 20 clicks	1.27%	1
TOTAL		79

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

High

Impact

Low

Easy

Difficult

Ease of Implementation

- Snapshot (arrange the result component (final dx) rows by the sign out time and expand Final diagnosis to display full text instead of truncated text).
- Standardized reporting (molecular test should be parallel with pathology report).
- Building a separate tab in EPIC
- Educate/train the accessioners, MSAs, and other clerks
- Electronically transcribed results (not scanning).
- Scan all results in media tab (current status).
- Consolidate CP and AP numbers to ONE number for molecular test
- Separate section of NGS and TGEN results in EPIC

PDSA Plan (Test of Change)

Date of PDSA Cycle	Description of Intervention	Results	Action Steps
TBA	Change the snapshot view in EPIC	Pending	See next slide
TBA	Build a new tab in EPIC for the Molecular results		

SnapShot Pathology Table

Collection date of the specimen	Bone Marrow/ Surgical Pathology Results	Flow Cytometry	Cytogenetics /FISH	Molecular

Change Data

Pending final findings based on PDSAs items identified.

Conclusions

We believe based on the material we developed and PDSA cycles has significantly increased the efficiency of utilizing the molecular data at City of Hope, although we can't measure the exact impact yet due to waiting on implementation.

Next Steps/Plan for Sustainability

To find a more efficient process to file the molecular studies performed at the outside facilities in a simple and clear approach.