

TABLE 6

- 5:00** Addressing Social Determinants of Health at an Urban Primary Care Clinic
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Addressing Social Determinants of Health at an Urban Primary Care Clinic

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Addressing Social Determinants of Health at an Urban Primary Care Clinic

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Background

During the Urban Community Ambulatory Medicine Program, we were placed at United Family Medicine Residency, an Allina Health primary care clinic located in downtown Saint Paul. The clinic provides comprehensive, community-oriented care to patients across all income levels, with a particular focus on the medically uninsured, underinsured, and underserved. Considering and addressing social determinants of health is essential for all patients, and it is critical for their patients. Allina uses a standardized screening process to identify social needs.

Community Resource Questionnaire.

- Administered annually at patient check-in.
- Screens for housing stability, food security, transportation, cost of utilities, medication access, medical expenses, and social isolation.
- Patients are given the option to request additional support, if requested they are referred to social work for follow up.
- Positive screens generate an individualized list of resources through Unite Us, a closed-loop referral platform that connects patients with local community-based organizations based on their positive answers and area code.

Pilot Results and Discussion

- Screening Frequency: 22% of patients due for screening, were screened in the prior month.
- Awareness Data: Faculty and Residents

	Pre-test Percent correct (n=24)	Post-test Percent correct (n=14)
Awareness of CRQ	70.8%	100%
Distribution	29.2%	92.9%
Frequency	37.5%	92.9%
Data Entry	66.7%	100%
Location on Epic	33.3%	100%
Location on AVS	33.3%	92.9%

- **Weaknesses:**
 - Small sample size for provider survey data.
 - Preliminary data and non-specific outcome data.
 - Interventions addressed multiple areas simultaneously, making it difficult to isolate effects.

Root Cause Analysis Model and Intervention

1-Problem Identification

- 26% of patients screened identified at least one social need. This is nearly four times the system average and supports the high need prevalence in this clinic.
- 23.1% of those who screened positive requested additional assistance.

2-Data Collection

- Stakeholder engagement included the clinic manager, business team manager, nurse manager, physician attendings, residents.
- Gather screening data (above)
 - Limited access to granular data made localizing specific points of breakdown challenging.
- Current screening process
 - Front desk staff offers screening annually at check-in.

- Rooming staff enters responses into an Epic flowsheet.
- Positive screens auto populate resource referrals onto the after-visit summary (AVS).
- Physicians print and delivered the AVS to patients.

3-Causal Factors Identification

- Variable offering of the screener at check-in.
- Patient completion versus declination rates.
- Data entry errors or omissions during rooming.
- Physician awareness and follow-through on printing AVS.

4-Root Cause Determination

- No single pain of failure: multiple gaps were identified at each step(Swiss Cheese Model).

5-Solutions Implementation

- Three-Part Intervention
 - Business Team (Front Desk)
 - Business team manager provided re-education on screener administration at a monthly meeting.
 - Clinical Team (Medical Assistants and Nursing)
 - Nurse manager provided re-education on accurate flowsheet documentation.
 - Physician team (Residents and Faculty)
 - Noon conference presentation provided education on the questionnaire, with pre- and post-intervention survey.
 - Reference flyers were posted in resident workrooms.

Impact

- Improved rates of Community Resource Questionnaire completion.
- Established ongoing support and promotion from the clinic.
- Increased provider understanding and use of screening tools.
- Enhanced patient access to community resources.

Future Directions

- Track rates of positive screenings, requests for assistance, and successful follow-up with resources.
- Use collected data to advocate for expanded in-person social work services.
- Regularly monitor screening rates to determine when re-education is needed.
- Continue promoting referrals to the clinic's community resource navigator and social worker.



Genetic Influence on Pediatric Acute Myeloid Leukemia Survival

Pablo Monterroso

Genetic Influence on Pediatric Acute Myeloid Leukemia Survival

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Introduction

- Racial disparities in pediatric acute myeloid leukemia (AML) outcomes are well-documented, yet genetic contributors remain poorly understood.
- We conducted a retrospective cohort study using data from the Therapeutically Applicable Research to Generate Effective Treatments (TARGET) AML project to investigate genetic contributions to disparities.

Methodology

Study Population

- 811 pediatric AML patients (non-Hispanic White, non-Hispanic Black, and Hispanic) with complete clinical and genomic data.

Genomic Data

- Somatic RNA-seq data from the Illumina Hi-Seq 2000 platform & Microarray data from the GeneChip® Human Gene 1.1 ST Array (Affymetrix)

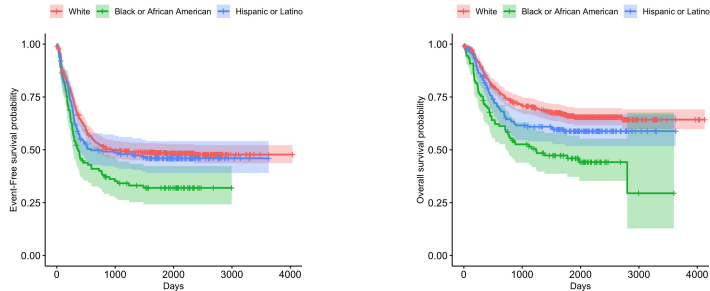
Analyses

- Survival: Multivariate Cox regression (adjusted for clinical covariates)
- Gene Expression: Differential analysis & Cox modeling
- Risk Stratification: LASSO Cox regression

Outcomes

- Hazard ratios (HR) for Event-Free Survival (EFS) and Overall Survival (OS), stratified by race/ethnicity and adjusted for clinical covariates

Figure 1. Kaplan-Meier curves for OS and EFS by race/ethnicity



Results

Differential Gene Expression Across Racial/Ethnic Groups

- 338 genes showed differential expression across racial/ethnic groups.

Key Genes Associated with Event-Free Survival (EFS)

- **ZHX2** upregulation (Hispanic patients) was correlated with improved EFS (log2 fold change: 1.074; adj. p = 0.042)
- **LCT** downregulation (Black patients) was associated with worse EFS (log2 fold change: -2.47; adj. p = 0.021)
- **KLRC1**, **CLUHP3**, and **PRC1** emerged as significant predictors of EFS among intermediate-risk patients.
- High **PRC1** expression mitigated adverse survival effects in Black patients.

ZHX2 upregulation (Hispanic patients) correlated with improved EFS,
LCT downregulation (Black patients) was associated with worse EFS

Conclusion/Discussion

- Our findings underscore the complex interplay of genetic factors in pediatric AML survival disparities.
- **ZHX2** (Hispanic patients) and **LCT** (Black patients) are key prognostic markers of event-free survival.
- Next step is to validate these prognostic markers and their expression in genomic ancestry data, as our current analysis relied on self-reported racial/ethnic data.
- Further research should explore non-coding genes and integrate diverse datasets to improve risk stratification and equity in care.

Funding

This work was supported by the National Cancer Institute (R01CA266105 to ERM).

Table 1. Genes Associated with EFS in Pediatric AML

a. RNA-seq data			
Gene	Hazard Ratio	95% CI	Adjusted p-value
ZHX2	0.584	(0.448,0.762)	0.025
LCT	1.501	(1.206,1.868)	0.046

b. Microarray data (intermediate-risk group only)			
Gene	Hazard Ratio	95% CI	Adjusted p-value
KLRC1	0.211	(0.080,0.557)	0.029
CLUHP3	0.389	(0.220,0.688)	0.029
PRC1	0.389	(0.205,0.740)	0.046





Improvement of Medical Assistant Handoff Process

Thai Vu

Improvement of Medical Assistant handoff process

Quality Improvement Project

This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.

Aim Statement

The projects aimed to improve the quality of the handoff & satisfaction, and to reduce missing orders

Outcome

Overall exp	Pre	Post	Proper hand off	Pre	Post	Look for residents	Pre	Post	Missed orders	pre	post	
		2	5		3	4		5	4		5	2
		1	3		3	4		4	3		4	2
		1	2		4	3		3	3		3	3
		4	3		3	4		3	4		2	4
		4	3		4	4		3	4		2	3
		2	4		3	4		3	1		3	3
		3			3			3			2	
Mean	2.428571	3.333333		3.285714	3.833333		3.428571	3.166667		3	2.833333	
95% conf	-0.53	2.34		-0.01	1.1		-1.46	0.94		-1.38	1.05	
T-test (p)	0.19			0.05			0.64			0.77		

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Background and method

- The then practice was a verbal handoff
- As clinic got busy, MAs got distracted leading to missing orders, dissatisfaction.
- The projects aimed to improve the quality of the handoff & satisfaction, and to reduce missing orders.
- Introducing a handoff slip to the verbal process
- Surveys are handed out at the beginning and the end of the project.

Intervention

Room # _____
Last Initial, First Initial: _____

In House

Pregnancy Test Urine Dipstick EKG
 HbA1c Glucose Hgb/Hct PT/INR
 Lead Bilirubin

Vitals: Missing | Repeat: _____ | **Orthostatics**
 COVID Test Flu Test Strep Test
 Medication: _____ Dose: _____

To Do

Labs Vaccines FIT Test Cologuard
 X-ray Ultrasound
 Confirm handouts received
 Records release for _____
 Speak with Care Coordinator: _____
 Change from Physical/WWE to Office Visit
 Change from Office Visit to Physical/WWE
 Wait for provider before leaving
 All Done

Follow-Up in _____ for _____
 15 min 30 min 45 min 60 min

Room # _____
Last Initial, First Initial: _____

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Pregnancy Test Urine Dipstick EKG
 HbA1c Glucose Hgb/Hct PT/INR
 Lead Bilirubin

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Evaluation

- It appears that the intervention did lead to increased perception and thus satisfaction of the handoff process.
- However, the practical outcome (the need to look for residents to clarify and the number of missed orders) remains the same.
- May need more data to evaluate further.
- Volume may remain the biggest factor (hiring more MAs)

Background and method

Resident to MA Handoff Post-Survey

1. How well do you think resident to MA handoffs are overall (1 being poor, 5 being perfect)?

Poor Okay Average Great Perfect

2. How often do you get a proper handoff from the resident?

Never Rarely Sometimes Most of the time Always

3. How often do you have to look for the resident for clarifications on handoffs?

Never Rarely Sometimes Most of the time Always

4. How often do things get missed due to a poor handoff?

Never Rarely Sometimes Most of the time Always

Measures/Indicators of Improvement

- Scoring the pre- and post – surveys
- Using two-tailed T test to analysis the results

Acknowledgement

- I would like to thank all my co-residents, the clinic attendings and the wonderful people at Hope Clinic, Houston, Texas.
- Without you, the project would not have been possible
- The program was short-lived, and our resources were heavily constrained. But we did our best and made a difference in the community.



Standardized Handoff Implementation at M Health Fairview: I-PASS

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Standardized Handoff Implementation at M Health Fairview: I-PASS

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Aim Statement

To reduce the number of adverse patient safety events by reducing errors related to communication. We will achieve this by creating a standardized handoff such that **75% of all handoffs follow the I-PASS structure.**

Background

Handoff communication is one of the top root causes of sentinel events.¹

Boston Children's Study: Adherence to the I-PASS structure decreased patient harm events, ranging from 30-47%.³

What is I-PASS?

I - Illness Severity

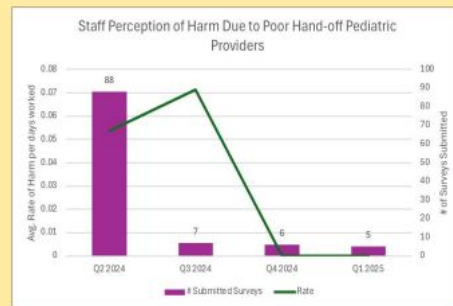
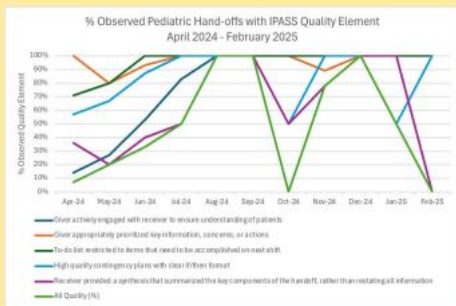
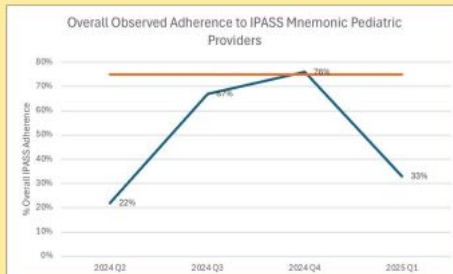
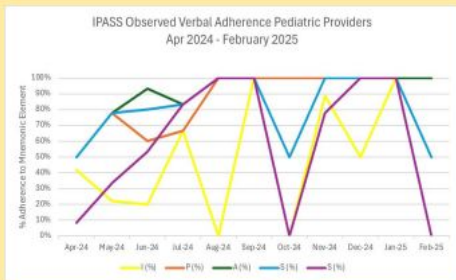
P - Patient Summary

A - Action List

S - Situation Awareness & Contingency

P - Planning

S - Synthesis by Receiver



Month	Adherence to I-PASS Components							All Mnemonic (n)	All Mnemonic (%)					All Mnemonic (%)
	n (total)	I (n)	P (n)	A (n)	S (n)	S (n)	I (%)		P (%)	A (%)	S (%)	S (%)		
2024	62	27	46	51	49	33	27	44%	74%	82%	79%	53%	44%	
Apr-24	12	5	6	6	6	1	0	42%	50%	50%	50%	8%	0%	
May-24	9	2	7	7	7	3	3	22%	78%	78%	78%	33%	33%	
Jun-24	15	3	9	14	12	8	5	20%	60%	93%	80%	53%	33%	
Jul-24	6	4	4	4	5	5	3	67%	67%	83%	83%	83%	50%	
Aug-24	1	0	1	1	1	1	1	0%	100%	100%	100%	100%	100%	
Sep-24	2	2	2	2	2	2	2	100%	100%	100%	100%	100%	100%	
Oct-24	2	0	2	1	1	0	0	0%	100%	50%	50%	0%	0%	
Nov-24	9	8	9	9	9	7	7	89%	100%	100%	100%	78%	78%	
Dec-24	6	3	6	6	6	6	6	50%	100%	100%	100%	100%	100%	
2025	3	2	3	3	3	2	1	67%	100%	100%	87%	33%	33%	
Jan-25	3	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%	
Feb-25	2	1	2	2	1	0	0	50%	100%	100%	50%	0%	0%	
Grand Total	65	29	49	54	51	34	28	45%	75%	83%	78%	52%	43%	

Limitations

- Sample Size
- Standardization of observation scoring
- Variety in clinical roles
- Variety in acuity of clinical settings

I-PASS in the NICU

- Challenges
 - Converting prior handoff template into an IPASS structure
 - Communicating complex care plans through the IPASS format

Next steps

- Monitor rates of adverse patient safety events following implementation
- Roll out I-PASS handoff in the UMN ED and community hospitals

Sources

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