

Annual WCM Quality Improvement & Patient Safety Poster Symposium

Abstracts and Posters

24 May 2023 Weill Cornell Medicine

Co-Sponsored by:

Quality Improvement Academy and Physician Organization | Division of Quality and Patient Safety and NewYork-Presbyterian Department of Nursing

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Projects Featured

Quality Improvement Academy: Craduating Class of 2022
Chart smarter, not harder: Improving Mortality with Documentation Elijah Douglass, MD; et al. Weill Department of Medicine
Sustainable Strategies for CAUTI Reduction at WCMC Manjinder Kandola, MD; et al. Weill Department of Medicine
Improving Communication in Neonatal Emergencies by Establishing a Neonatal Resuscitation Team (NRT) in a Community Hospital Setting Johanna Calo, MD; et al. Department of Pediatrics
Kangaroo Care to Improve Parent Satisfaction and Decreased Depression/Anxiety Associated with NICU Hospitalization Emily Echevarria, MD; et al. Department of Pediatrics
Prevention Nephrotoxin-related Acute Kidney Injury (NAKI) –an SPS/CHA Effort Anuradha Gajjar, MD; et al. Department of Pediatrics
Simplified Preoperative Venous Thromboembolism Risk Assessment Model Adaptation to Same-Day Admit Surgical Patients Shelby Badani, MD; et al. Department of Anesthesiology
Implementation of a Prenatal Anesthesia Education Program to Improve Health Equity, Increase Access, and Assess the Impact on Maternal Anxiety and Postpartum Depression Jason White, MD; et al. Department of Anesthesiology
Reducing Fall Risk and Anxiety after Emergency Department Discharge via Community Engagement Lynn Jiang, MD; et al. Department of Emergency Medicine
The Efficacy of NIRS in Monitoring Peripheral Perfusion during Peripheral Extracorporeal Membrane Oxygenation for Cardiac Support in Adult and Pediatric Population Monika Tukacs, BSN, RN, CCRN; et al. NYP-Department of Nursing
Transitions of Care Evaluation and Glycemic Management to Reduce Readmissions and Achieve Inpatient Blood Glucose Goals- (TEAM- Glucose trial) Jessica Snead, PharmD; et al. Department of Pharmacy/Internal Medicine
Improving Patient Portal Enrollment for Adolescent Patients & Proxies Jonathan Elias, MD; et al. Primary Care
Measurement Based Care in the Child OPD Alma Spaniardi, MD; et al. Department of Psychiatry
QIPS Poster Symposium
Early Initiation of Epidural Infusions Kimberly Bogardus, MD; et al. Department of Anesthesiology
Reducing Ionizing Radiation Exposure in Children with Concern for Intracranial Shunt Malfunction Through Implementation of a Clinical Pathway Nicole Gerber, MD; et al. Department of Emergency Medicine
Decrease the Door to CT Head (CTH) Time by 10% in Acute Stroke Activations Andrew Jacobowitz, MS, PA-C; et al. Department of Emergency Medicine

QIPS Poster Symposium
Electronic Referral of Potential Organ Donors Increases Timely Notification Rates and Saves Clinician Time Matthew Laghezza, MS, MBA, PA-C; et al. Department of Emergency Medicine
Qualitative and Quantitative Medical Student Perspectives on Board Experiences at Weill Cornell Community Clinic Nicole Palmer; et al. Medical School
Dedicated Simulation-Based Point of Care Ultrasound Training for Internal Medicine Residents to improve Confidence and Proficiency Evaluating Acute Decompensated Systolic Heart Failure and Large Pericardial Effusion Mikiyas Desta, MD; et al. Weill Department of Medicine
Improving Transitions of Care with a Community- Based Palliative Care Program: Results from a Pilot Project for Advanced Solid Tumor Oncology Patients Christine A Garcia, MD; et al. Weill Department of Medicine
Quality Improvement Initiative to Increase Contraception Documentation in an Academic Rheumatology Clinic Caroline Siegal, MD; et al. Weill Department of Medicine
Stroke and Transient Ischemic Attack Care Transitions Clinic: Providing Timely, Evidence-Based Care Evan Kolesnick, MD; et al. Department of Neurology
2022 Patient Experience Achievements Natalie Aflalo, MPH; et al. NYP-Department of Nursing
Upskilling Oncology Nurses to Competency with CAR-T Infusion & Management Paige Ahearn, BSN, RN, BMTCM; et al. NYP-Department of Nursing
Encouraging Early Kangaroo Care in the Neonatal ICU: A Quality Improvement Project Tricia Budway, MSN, RN, CPNP, CLC; et al. NYP-Department of Nursing
C - diff - errent Results! Piloting an Algorithm Gary Camelo, DNP, RN, NEA-BC; et al. NYP-Department of Nursing
Evaluating Maternity Nurses' Perception of Implicit Bias and its Influence on Maternal Outcomes Jaclynn Chen, SNM, MPH, BSN; et al. NYP-Department of Nursing
Comfort Care Rounds- Facilitating the Transition to General Inpatient Care Hospice at Lower Manhattan Hospital Valerie Morales, LMSW; et al. NYP-Department of Nursing
<i>Asking the Why in Telemetry</i> Katherine Nehring, BSN, RN; et al NYP-Department of Nursing
Assessing the Language Proficiency of Our Bilingual Perioperative Staff Maria del Mar Rodriguez, MSHI, CNS; et al. NYP-Department of Nursing
Understanding Risk Factors for the Usability of a Genetic Cancer Risk Assessment Tool Among Gynecologic Oncology Patients: A Quality Improvement Initiative Luiza Perez; et al. Department of Obstetrics and Gynecology
A Quality Improvement Initiative to Develop and Implement a Genetic Cancer Risk Assessment Tool for Use in a Diverse, Urban Gynecology Clinic Emily Webster, MD; et al. Department of Obstetrics and Gynecology

QIPS Poster Symposium

Implementation of a Collaborative Care Model for Perinatal Mood and Anxiety Disorders Sarah Weingarten, MD; et al. Department of Obstetrics and Gynecology

Use of Diagnostic Stewardship to Reduce Inappropriate Microbiology Sendout tests: LMH Pilot Study Stacia Semple, MD; et al.

Department of Pathology and Laboratory Medicine

Resident Led Quality Improvement Project Incorporating a Clinical Psychologist into a Pediatric Primary Care Clinic to Improve Postpartum Depression Screening and Referral Rates Kelly Banks, MD; et al. Department of Pediatrics

Preventing Unplanned Extubations in the NICU Michael Brandler, MD; et al. Department of Pediatrics (NYP-Q)

Resident-led Quality Improvement Initiative to Improve Environmental Assessment in Pediatric Asthma Istvan Kanyo, MD; et al. Department of Pediatrics

Community Hospital Standardized Procedural Refresher for the Interprofessional NICU Team (Community Hospital SPRINT) - Intubation Natasha Shapiro, MD Department of Pediatrics (NYPQ)

Pilot Implementation of a Behavioral Emergency Response Team Reduces Work- Related Injuries from Patient-to-Staff Violence Kathleen Hanlon, MD; et al. Department of Psychiatry

B STRONG: Evaluating Breast Cancer Survivors' Perception of Weight Management Genevieve Fasano, MD; et al. Department of Surgery

Background

- Hospital Medicine (HM) providers regularly fail to capture the complexity of their patients in their notes.
- Information coded from notes impacts quality metrics including the Mortality Index (MI) and Length of Stay Variance (vLOS). It also impacts risk adjustment models for certain Hospital Acquired Infections (HAIs) and plays a role in determining hospital reimbursement.
- Compared to peers, it appears that our patients are less complex, spend more time in the hospital, and die more frequently than those admitted to other hospitals.
- This is not true. A key driver to our apparent poor performance is that we capture key diagnoses at or below the 25th percentile for academic medical centers.

Aim Statement

• The primary aim of this project was to improve the capture rate of high impact diagnoses on the WC/LMH PA services from below the 25th percentile to the 75th percentile. Target diagnoses: fluid and electrolyte disorders, sepsis, respiratory failure, encephalopathy.

Design/Methods

 Intervention based study targeting all WCMC Hospitalists with educational material re: CDI starting 7/2022.

• Interventions included:

- New MD role within CDI team
- Updated new faculty orientation
- Two new talks to faculty re: Clinical Documentation
- New 5-min CDI update at bi-weekly faculty meetings
- 1:1 meetings with outlier faculty
- New CDI query escalation protocol
- Close collaboration between MD and CDI team
- Diagnosis capture rate for all discharges was reviewed comparing AY2023 (intervention period) to AY2022 (baseline)

Improving Clinical Documentation in Weill Cornell Hospital Medicine

Elijah Douglass MD, Rebecca Berger MD, Wenna Xi PhD, Daniel Crossman MD May 24th 2023



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- Statistically significant improvements in capture rate for three out of the four target diagnoses
- Though small in absolute %, these changes likely represent appreciable improvement in percentile
- Statistically significant reduction in mortality index
- Challenging to consistently capture all providers with education (30-40% group attendance at meetings)
 - Current data/analytic systems and support make it challenging to reliably access this data
 - We were unable to distinguish PA service vs
 - Housestaff service discharges, likely diluting positive

• *Performance percentiles are currently only available at the Institutional (not division) level

- Education improved Hospital Medicine documentation practices. Future efforts will focus on EMR tools that make it easier to document accurately for ALL providers and remove the need for an individual provider to have
- Outside of this presented data, much was accomplished with the addition of MD members to the CDI team. • Generation of new group/provider level reports
- Improved understanding of provider workflows and optimization of communication practices
- Provider input on strategic decisions regarding the future of CDI for the enterprise
- Development of new tools to improve CDI by harnessing the power of the EMR and reducing

• New EMR tools including already rolled out .qualityadmission smarttext are expected to make it easier for providers to capture missed diagnoses

Background

- Catheter-associated urinary tract infections (CAUTIs) are urinary tract infections that occur in the context of an indwelling foley catheter
- CAUTIs represent approximately 9% of all healthcare acquired infections and are associated with increased cost and poor clinical outcomes
- Most CAUTIs are preventable
- Studies have shown an association between foley/intrauterine catheter (IUC) days and CAUTIs

There were 34 CAUTIs (SIR 0.75) at NYP WCMC from Sep 2021 – Aug 2022. Of these, 5 occurred on 1 unit, 11SA (SIR 4.05), a medical stepdown unit.

Medical Unit	Median IUC Duration	
11SA	9.2 days	Inte
5W	9.9 days	(
5 S	9.7 days	
NYP WCMC	2.5 days	

Although patients are sicker on stepdown units compared to general units, this level of disparity is disproportionate and creates an opportunity for improvement.

Driver Diagram



Project Aim

- Reduce total number of IUC days by 5% in housestaff patients admitted to 11SA with new IUC from 9/1/22 to 3/1/23 compared to prior 6 months
- -Baseline: 218 IUC days > Target: 207 IUC days

Sustainable Strategies for CAUTI Reduction at WCMC Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium Manjinder Kandola MD, Wenna Xi PhD, Evan Sholle MS, Harjot K Singh MD, Daniel Crossman MD | May 24th, 2023





Project Intervention

Progress Note Bundle

Active LDA: .LDANOTES	MD
Foley order: .FOLEY (single line text) or .IPFOLEYCAT (display printgroup)	
Continuous fluids: .MEDSCONTINUOUS	
Nutrition/ Diet: .DIETNEUICU (Single line text) or .DIETARY (display printgroup)	
DVT meds: .DVTMEDS	
Code Status: .CODESTATUS	
For all of the above, combined smart phrase: .BUNDLE	•

Results







Figure 2. Total IUC days/month on 11SA were reduced from 31.4 days to 12.7 days after initiation of intervention.



of Days

Median (Min M

POOR FEEDIN

Mean (SD)

of Days

For housestaff patients admitted to 11SA with a new IUC from 9/1/22 to 3/1/23 compared to prior 6 months, intervention led to:

- Reduction of Total IUC Days from 218 days to 104 days (52%) reduction)
- Reduction of Median IUC days from 4.6 days to 3.3 days (28%) reduction)
- CAUTI Incidence: Reduction of Incident CAUTI from N=2 to N=1



• Multi-pronged intervention achieved target reduction in

• Did not observe corresponding increase in balancing

• Did not observe change on control unit suggesting observed reduction was not due to parallel efforts at NYP • Intervention overall well-received - dashboard inclusion specifically was easiest to adopt and likely most

• There remains room for further improvement, especially

ase Summary	IUC Days
retention, failed TOV, discharged	
	9.5
DHF requiring aggressive diuresis	19.5
ed MAC with bladder involvement,	
scharged with foley	6
's disease presenting with FTT,	
n home hospice	1.7
senting with PE and aspiration	
	5.9
charged with foley s disease presenting with FTT, home hospice senting with PE and aspiration	6 1.7 5.9

Table 2. Review of patients with IUCs on 11SA in Feb 2023, revealing especially prolonged IUC duration in a single patient

• Ongoing data collection to assess sustainability; typically process changing interventions are more sustainable Intervention is well-poised to scale further as part of broader NYP efforts (easy to implement, technical

- Goal is to target larger housestaff audience as well as APPs Ongoing work with EPIC to further customize dotphrases,
- Ongoing work to specifically highlight patients with prolonged IUC duration for further review and targeting

- Dr. Jennifer Lee, Dr. Robert Kim, Ericka Fong, Sawida
- Nadine Rosenthal and Jules Motal for nursing leadership. • Linda Gerber for assistance with project design.
- James Lam for EPIC Informatics support.

Improving Communication in Neonatal Emergencies by Establishing a Neonatal Resuscitation Team (NRT) in a **Community Hospital Affiliated with an Academic Medical Center**

Annual WCM Quality Improvement & Patient Safety Poster Symposium | May 24, 2023

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Szilvia Nagy, MD¹, Julia Cron, MD¹, Snezana Nena Osorio MD MS²

¹ Department of Obstetrics and Gynecology, Lower Manhattan Hospital, ²Department of Pediatrics,

Weill Cornell Medicine

New York Presbyterian-Weill Cornell Medical Center ³ Division of Newborn Medicine

NewYork-Presbyterian The University Hospital of Columbia and Cornell

Background

- After birth, approximately 5% of term newborns will receive positive-pressure ventilation (PPV), 2% of term newborns will be intubated and 1 to 3 per 1,000 will receive chest compressions or emergency medications
- Because the need for assistance cannot always be predicted, teams need to be prepared to provide these lifesaving interventions guickly and efficiently at every birth
- The current method of communication between OB and NICU is outdated. Labor and delivery nurses typically call the Pediatrician or the Pediatric PAs to attend routine deliveries
- If the newborn requires resuscitation, a phone call is made to the Neonatologist as well as the NICU nurses
- Establishing a Neonatal Resus Team (NRT) that can be rapidly mobilized during a resuscitation, will eliminate the need to make multiple phone calls and allow more team members to focus on the task at hand
- The NRT includes Pediatrics, Neonatology, NICU nurses, Respiratory Therapists and Anesthesia

SMART Aims

By July 2023, the QI Team will:

- 1. Increase the number of appropriate emergency alerts and notifications to the NRT as outlined in the process map, to >50%
- 2. Improve the rate of timely delivery room attendance by the Neonatal Resuscitation team to >75%

Methods

Study Design:

- This ongoing QI study utilized the Model for Improvement with a series of sequential interventions
- Baseline data were collected from May to June 18, 2022.
- The following family of measures were used:
 - 1. number of deliveries with NRT indications for delivery room attendance (process)
 - 2. number of Epic chat notifications generated (outcome)
 - number of deliveries with NRT attendance (outcome)

Figure 1. Process Map:



Analysis: Run charts and statistical process control charts (P charts) were used to display and analyze data.



Figure 2. Notification of NRT via EMR chat

Figure 3. NRT Attendance at Delivery



Results

- A total of 1,398 maternal charts and their corresponding baby charts were reviewed for any indications for DR attendance by the NRT between May 1, 2022 and January 31, 2023
- Baseline data showed that 61/335 deliveries (13%) had indications for DR attendance by the NRT
 - the NRT was present for 64% of these deliveries
 - only 2% of the NRT-indicated deliveries having an EMR chat generated
- In the intervention period, out of 1,063 deliveries, 238 (22%) had indications for NRT attendance
 - there was no CL change in the NRT attendance at deliveries
 - there was a CL change from 13% to 62% with an EMR chat generated
- There were no serious safety events in the NICU

Impact and Future Directions

- The creation of a process map to alert the NRT was effective at increasing the number of appropriate emergency notifications but has not yet shown an increase in the attendance of the NRT at appropriately indicated deliveries.
- Next steps include modification of delivery room guidelines to optimize appropriate provider attendance at delivery.

Weill Cornell Medicine Pediatrics

Annual WCM Quality Improvement & Patient Safety Poster Symposium | May 24, 2023 Giselle Gozum, MD¹; Emily Ahn, MD¹; Rebecca Miller, MD, MSc¹; Charlene Thomas, MSc³; Kristen Fucillo, MSN¹; Tricia Budway, MSN¹; Snezana Nena Osorio, MD, MSc²; Emily Echevarria, MD¹ ¹Division of Neonatology, ²Department of Pediatrics, NewYork-Presbyterian Weill Cornell Medicine, New York, NY; ³Department of Biostatistics, Weill Cornell Medicine, New York, NY;

BACKGROUND

 Despite the known benefits and safety of kangaroo care (KC), there are no established standards and there are many barriers to practice leading to low rates of KC in our NICU

SMART AIM

• Decrease the age at first KC session by 50% in a level IV NICU by June 2023

METHODS

- *Study Design:* This is a mixed methods study consisting of an observational, time-series component with multiple planned sequential interventions and survey methodology
- Analysis: Data were analyzed with SPC charts using rules to detect special cause variation; Descriptive statistics, parametric and nonparametric tests were used to analyze survey data

MEASURES

- *Process*: Mean age at first KC session for infants with KC data available and mean number of days that infants received any KC in the first week of life
- Outcome: Rates of all breast milk feeds at discharge and rates of caregiver anxiety and depression
- Balance: Unplanned extubation and line dislodgement

DRIVER DIAGRAM



Increasing Kangaroo Care in a Level IV NICU: A Quality Improvement Initiative

TAKE HOME POINTS

A quality improvement initiative improved timeliness and frequency of Kangaroo Care in the first week of life in preterm infants with protocol development and information dissemination

Multidisciplinary involvement and sequential efforts are necessary to make and sustain changes regarding developmental care

Improving quality of care can lead to improvement in disparities



Protocol development, faculty and staff education, caregiver kangaroo-a-thon <mark>CL = 5.8</mark>

PDS	ACYC
1	KC pr
	Track
2	KC pr
	Sendi
	Kanga
3	Stand

RESULTS

- surveyed

- feeding
- 2021 vs 2022

FUTURE DIRECTIONS

- month of life
- depression



_ES

rotocol development king KC using paper charts roject presentation to division ing reminders to document aroo-a-thon events Standardization of EMR documentation

• 1,414 charts reviewed, 62 caregivers

Decrease in the mean age in days at first KC in preterm infants from 9.8 to 5.9 days (Fig 1) for those who had at least one session of KC

Increase in the mean number of days a preterm infant received any KC in first week of life from 1 to 1.4 days

~50% of infants (overall and preterm) received KC in the first week of life

30% of all infants (38% of preterm infants) were discharged on exclusive breast milk

No change in social work referrals for caregiver anxiety and depression, GAD-7, and PHQ-2 scores from Q4 2021 to Q4 2022 (P=0.18, P=0.57, and P=0.58, respectively)

Racial disparities noted in 2021 improved in 2022: infants of Black race held later (6 vs 2 days, P=0.003) and 60% less (P=0.005) in

Incorporation of KC practice during rounds

• Evaluate relationship between KC provision and exclusive breast milk feeding in the first

Expand testing for caregiver anxiety and

Understand and address differences in practices according to race



Background

- Exposure to nephrotoxic medications (NTMx) is a risk factor for developing acute kidney injury (AKI
- Creatinine is inconsistently monitored in pediatric patients at risk for AKI leading to poor identification and underdiagnosis of AKI
- Nephrotoxin-related AKI (NAKI) is associated with increased hospital cost, length of stay and risk for chronic kidney disease
- Social determinants of health are known to impact rates of NAKI

Problem

- Exposure to nephrotoxic medications increases the risk for AKI
- No system for identifying patients receiving NTMx and at risk for AKI
- Limited creatinine monitoring leads to underdiagnosis of AKI

Objective/Aim Statement

- We aim to reduce exposure to nephrotoxic medications and nephrotoxic medication-associated acute kidney injury in non-ICU pediatric patients by 50% by December 31, 2023
- We will examine the association between social determinants of health (SDH) and NAKI.

Design and Methods

Study Population

- Patients 18 years and younger admitted to non-ICU Pediatric Units at Weill Cornell
- Exclusion Criteria: End-stage kidney disease on dialysis

Operational Definitions

- Exposure criteria: 3 or more nephrotoxic medications* in 24 hours, 3+ days of IV aminoglycoside or vancomycin (*some medications count as exposure for 7 days)
- AKI defined as 50% increase in creatinine above baseline, or 0.3mg/dL increase within 48 hours after exposure to NTMx

Outcome Measure

- NTMx exposure per 1000 patient days
- NTMx exposed patients who develop AKI (NAKI) per 1000 patient days
- % NTMx exposures that develop NAKI

Process Measure

- Percent of patients correctly identified by EPIC trigger tool
- Percent of patients with NTMx exposure in whole creatinine monitoring is implemented
- Percent of providers contacted after initial exposure is identified

Balancing Measures

- Percent of persistently positive blood cultures
- Increased frequency of blood draws

Reducing Nephrotoxic Medication-Related Acute Kidney Injury

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium Radha Gajjar MD MSCE, Sarah Smith PharmD BCPPS, Elena Mendez-Rico PharmD, Evan Sholle MS, Nena Osorio, MD MS May 24, 2023



Baseline Exposure and NAKI Rates



Fig 1. Baseline rate of NTMx exposure in non-ICU pediatric patients between 1/2021 and 12/2022.



Fig 2. Baseline rate of AKI in NTMx-exposed patients (NAKI) in non-ICU pediatric patients between 1/2021 and 12/2022.

								•	_	•	
\checkmark	/	•	•							_	
2/1/22	3/1/22	4/1/22	5/1/22	6/1/22	7/1/22	8/1/22	9/1/22	10/1/22	11/1/22	12/1/22	

Driver Diagram



Findings

Counts as

of other

medications

Counts as

days

- (SPC charts below)

Conclusions/Lessons Learned

- accomplish
- process
- complex processes

Next Steps

- accuracy
- between January 2023 to current
- and prospective data
- Rollout to ICU settings
- Rollout to network hospitals

References:

- 509-522, 2011
- Accelerated Pioneer Cohort.
- injury. *Kidney Intl* 90(1): 212-221, 2016

• Developed EPIC Trigger tool with assistance of EPIC team and pharmacy teams • Review of baseline NTMx and NAKI between January 2021 and December 2022

• NAKI rates are consistent with published rates from peer centers • Validation of data capture and EPIC Reporting tool in process

• Consistent and accurate data capture is critical for reporting and challenging to

• It is helpful to learn from other centers who have implemented a similar

• EPIC and IT support and resources are key for developing tools to automate

• We will work to continue to validate baseline data and EPIC reporting tool

• After validation of baseline data and EPIC reporting tool, analyze data collected

• Incorporate analysis of social determinants of health (SDH) with both baseline

 Ongoing review with critical stakeholders to effect awareness and culture change around exposure to nephrotoxic medications and monitoring for AKI

• Anticipate formal bundle from Solutions for Patient Safety (SPS) around NAKI

1. Goldstein SL, Devarajan P: Acute kidney injury in childhood: Should we be worried about progression to CKD? *Pediatr Nephrol* 26: 2. Children's Hospitals Solutions for Patient Safety: Reduction of Nephrotoxic Acute Kidney Injury (NAKI) – Welcome Packet for the NAKI 3. Goldstein SL, Mottes T et al: A sustained quality improvement program reduced nephrotoxic medication-associated acute kidney

Weill Cornell Medicine Adaption of a Simplified Preoperative Venous Thromboembolism Risk Assessment Model for Same-Day Admit Surgical Patients

Quality Improvement Academy

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium | May 24, 2023

Shelby Badani, MD, MS, MSPH, Daniel Crossman MD, Jennifer Inhae Lee MD, Patricia Fogarty-Mack MD

Problem Statement

•Venous thromboembolic events (VTE) are a leading cause of postoperative morbidity and mortality.

•Currently, NYP EPIC EMR displays the Caprini Risk

Assessment Model (RAM) ranges as references to classify a patient as high risk, moderate risk or low risk for DVT/VTE within an anticoagulation order set

•The goal of this project is to improve ease of risk stratification through a simplified scoring system in order to improve anticoagulation prescribing.

• Mlaver et al. describe a scoring system (COBRA) developed for brevity and ease of obtaining the five risk factors involved:

- Cancer
- "Old" (Age >/= 60)
- BMI (>/= 30)
- Black race

• <u>American Society of Anesthesiologists Physical Status (ASA-PS)</u> <u>score</u>.

•A shorter risk assessment would improve ease of use for the ordering provider with routinely available EMR data, which may even be automated.

Objective/Aim Statement

The aim of this project is to evaluate the concordance of Caprini and COBRA in our surgical population and determine the feasibility of utilizing COBRA as a RAM to facilitate chemoprophylaxis.

Once adopted, the plan is to compare the percentage of completed Caprini RAM and COBRA RAM scores of same-day surgical patients before adoption of COBRA RAM to post-adoption scores and ordering of anticoagulation. The goal was to achieve a 15% increase in pre-operative VTE risk assessment provider participation.

Design/Methods

This project relies primarily on chart review for baseline data and prospective observational data to determine if RAM data is impacting pre-operative heparin ordering.

After RAM implementation, surveys will be utilized in addition to determine prescriber ease of use and impact on overall ordering.



Figure 1. Process Map detailing the Pre-operative heparin ordering process from surgical booking to post-operative order placement.







Figure 3. Percentage of patients receiving pre-operative heparin over different surgical services in a review of 157 patients with calculated Caprini scores.

Concordance

Caprini and COBRA concordance for classification as high risk for VTE (Caprini score >/= 3, COBRA >/=4) was 57.9% of 157 reviewed cases that met this criteria.

Only 44.5% of patients had concordant scores with highest risk Caprini classification (Caprini >/=5)

Pre-Implementation data collection ongoing

Comparison of Caprini, COBRA and alternative ambulatory RAM is currently being reviewed by surgical champion team. Based on the concordance and applicability to patient population, RAM will be utilized pre-operatively to inform chemoprophylaxis prescribing.

Challenges

Given the complex interplay of surgical and patient factors affecting the risk versus benefit discussion around pre-operative heparin prescribing, identifying a surgical champion has been critical.

Given the prescribing preferences of surgeons and that the proposed RAM is an added element to current workflow, finding a committed surgical service was a primary limitation.

Currently, surgical champion is reviewing multiple RAM scores to find concordance and applicability to the proposed patient population prior to trial of adopting routine use.

Next Steps

Following this evaluation, next steps would include:

-Adaptation of a new RAM as a pilot by a single surgical service

- -Evaluation of RAM impact on chemoprophylaxis prescribing pre and postimplementation
- -Survey of prescribers to evaluate for ease of use, impact on decision-making and sustainability

-Explore feasibility of EPIC automation of RAM calculation

-Trial of a Best Practice Advisory prompt within the EMR that highlights the patient risk score to inform prescribing to all surgical services.

Background of the Problem

- Birth trauma has become a distinct syndrome with long-term multisystem effects. A significant cause of birth trauma is analgesia during labor and delivery.
- Prenatal anesthesia education can enhance patient satisfaction, decrease maternal anxiety, and may even reduce postpartum depression.
- LMH OB patients are offered a one-hour session led by an OB Anesthesiologist in English only via a teleconnection platform, but only a small percentage attend.
- Approximately 40% of LMH OB patients are Asian, with a large proportion not identifying English as a primary language.

Objective/Aim Statement

- The aim of this project is to increase participation of obstetric patients at LMH in the prenatal zooms by 25% through increased promotion of the sessions, simplification of the scheduling process, and provision of translated sessions by June 20, 2023.
- A secondary goal of assessing effects on maternal anxiety by the incorporation of a novel survey.

Design/Methods

- Interventional study to detect changes in percentages of patients who attend after multiple PDSA iterations.
- Surveys will be given to the patients pre and post sessions. The differences will be examined to determine any effects on maternal anxiety.

Implementation of a Prenatal Anesthesia Education Program to Increase Access, Improve Health Equity, and Assess the Impact on Maternal Anxiety

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Jason J. White MD, Michelle Tiangco MS, Patricia Mack MD, Brock Daniels, MD



Initial Scheduling Process Map



Current State of Scheduling Process

Patient attends prenatal OB appointment with LMH physician Patient given information about OB Anesthesia Information session OR is emailed splash page automatically from practice Patient self registers via splash page and completes pre-intervention survey Patient attends live session and completes postsession survey

5/4/2022 Splash Page Live for Patients to Selfschedule

5/6/2023 Survey Questions Added to Prenatal **Zoom Registration**

	I feel comfortable with Manhattan Hospital in	n my knowledge o cluding:	of the pain ma	inagement op	otions at Low	er
Weill Cornell Medicine		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
	Nitrous Oxide	0	0	0	0	0
nesthesia/Pain Management Survey LMH	Intravenous Remifentanil	0	0	0	0	0
your current state of mind.	Epidural/Combined Spinal Epidural	0	0	0	0	0
Neither agree nor disagreeSomewhat agreeStrongly agrees for pain management during labor and delivery at Lower	I have anxiety or am w Strongly disagree	vorried about pai Somewhat disagree	n managemer Neither agree nor disagree	nt during labo Somev agre	vhat s	y. Strongly agree
mewhat agree nor agree agree	Please share any addi	tional comments	or suggestior	ns.		
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Results

Participation in prenatal information sessions increased significantly over time.

Conclusions/Lessons Learned

- preferred by patients.
- accessible.
- obtain post-session survey data.

Next Steps

- post-session surveys.
- to offer translated sessions.

- live sessions.

Self-scheduling and late evening sessions are most

Translated, live sessions are time and cost-prohibitive, but recorded sessions are an alternative that is easily

Follow-up and frequent reminders are necessary to

Send automated reminders to patients to complete

Connect with physician partners and Patient Services

Examine the usage of nitrous oxide post intervention. Train more providers to increase session frequency. Record session for patients who cannot participate in

Presentation of results to departmental stakeholders, with possible usage of this format at other sites and other areas with the Anesthesiology Department.

- age¹ leading to over 3 million annual ED visits.²
- **24%**.^{3,4}
- hospitalization.⁵

referral to the Community TeleParamedicine program



Using Community TeleParamedicine to Perform In-Home Fall-Risk Reduction after a **Sentinel Emergency Department Encounter**

Lynn Jiang MD, Christina McGinnis MBS, Emily Benton MD, Emilee Nawa PA, Michael Stern MD, Brock Daniels MD MPH

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium | May 24, 2023



699



Feasibility metrics

Number of patients screened/randomized Number of completed CTP initial and follow-up visits

Number of completed 30 day follow-up calls

0.0614

0.174

0.982

< 0.001

Outcome metrics

20% reduction in ED visits / hospitalizations 30 days postdischarge

20% reduction in fear of falling >50% completed resource referral

Results

- evaluation during their initial CTP Visit
- and hospitalizations (20.7% v 4%)
- Independent or Fall Efficacy Score

Identified needs and interventions at initial CTP visit:

Orthostatic	Home H 22 (43	azards .1%)	TUG 35 (68	>15 3.6%)	Med Changes	MM: 11 (2	SE <24 21.6%)	Home Services Referral	PT referral	Community Services	Outpatient Provider Referral
	Intervene	Not Doc	Intervene	Not Doc		Intervene	Not Doc				
2 (3.92%)	16 (72.7%)	6 (27.2%)	26 (74.3%)	9 (25.7%)	16 (21.4%)	2 (18.2%)	9 (81.8%)	7 (13.7%)	10 (19.6%)	2 (3.92%)	10 (19.6%)
Interval events		Falls (di seek c	id not are)	Fall Rela ED vis	ited	Fall Rela Hospitaliza	ted ation	Unrelate ED visit	d Uni Hospi	related talization	
Between ir	nitial and fo CTP visit	ollow-up	1		0		1		1		0
30 days af	ter initial C	TP Visit	5		3		0		11		10

Conclusions

- easy to perform
- STEADI fall-risk evaluations
- Successful referral to a variety of outpatient resources
- Primary areas for intervention are (1) gait instability and (2) home hazards \rightarrow CTP allows for immediate home modifications as well as referral to physical therapy, home services, and/or assistive devices
- Additional medical needs include medication reassessment and further intervention / other formal evaluation for cognitive decline.

Next Steps

In process

- Collaboration with the trauma service

Longer Term

- Examine effects on quality of life
- rapid follow-up times

Stevens MR, Burns ER. Falls and Fall Injuries Among Adults Aged ≥65 Years - United States, 2014. MMWR Morb Mortal Wkly Rep. 2016;65(37):993-998. Resource: Algorithm for Fall Risk Screening, Assessment, and Intervention. In: Prevention CfDCa, ed2019. ated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons. J Am Geriatr Soc. 2011;59(1):148-157. obertson MC, Gillespie WJ, et al. Interventions for preventing falls in older people living in the community. Cochrane Database Syst Rev. 2012;2012(9):Cd007146 Goldberg EM, Marks SJ, Resnik LJ, Long S, Mellott H, Merchant RC. Can an Emergency Department-Initiated Intervention Prevent Subsequent Falls and Health Care Use in Older Adults? A Randomized Controlled Trial. Ann Emerg Med. 2020:76(6):739-750. Naughton C, McGrath E, Drennan J, et al. The profile and follow-up of patients who attend the Emergency Department following a fall. Int Emerg Nurs. 2012;20(4):243-250. Donaldson MG, Khan KM, Davis JC, et al. Emergency department fall-related presentations do not trigger fall risk assessment: a gap in care of high-risk outpatient fallers. Arch Gerontol Geriatr. 2005;41(3):311-317. Paniagua MA, Malphurs JE, Phelan EA. Older patients presenting to a county hospital ED after a fall: missed opportunities for prevention. Am J Emerg Med. 2006;24(4):413-417

• Mean time from ED discharge to initial visit = 10.1 days (STD 9.1) • Mean time for initial CTP visit to follow-up CTP visit = 19.1 days (STD 5.0) All patients except one (first ever patient for this study) received a STEADI

• Population with higher all-cause 30 day return for ED visits (18.9% v. 11%)

• No change at 30 day follow-up compared to baseline surveys for Stay

ED screening and post-ED discharge CTP in-home fall risk reduction evaluation and mitigation is feasible and acceptable \rightarrow provider feedback =

• Successfully completed at-home cognitive impairment screenings and

• Data collection is ongoing \rightarrow analyze results from complete data set • Improved workflows for provider interventions for (1) concern for cognitive decline – ie lower MMSE and (2) gait instability – ie prolonged TUG text

Examine effect on longer-term clinical outcomes • Expand CTP capacity for increased patient volumes and allow for more



BACKGROUND AND PROBLEM

- Veno-arterial extracorporeal membrane oxygenation (V-A ECMO) is the most critical level of life support as a bridge to recovery or transplantation in patients with cardiac failure refractory to other treatments.
- Increasingly, peripherally-inserted ECMO (pECMO) is being performed accessing a femoral artery (FA). However, this can result in serious complications (i.e., ischemia, compartment syndrome, fasciotomy, amputation) in the leg with a FA cannula due to retrograde ECMO blood flow.
- To monitor bilateral lower extremity (LE) perfusion, current practice is hourly bedside physical assessments of the vascular system.
- Near-infrared spectroscopy (NIRS) may allow for continuous monitoring of peripheral perfusion (PP) in pECMO with early detection/ prevention of complications.

AIM STATEMENT

To implement NIRS in 100% of patients cannulated to pECMO in the Cardiothoracic Intensive Care Unit (CTICU) and Pediatric Intensive Care Unit (PICU) at NewYork-Presbyterian/ Weill Cornell Medical Center by June 30, 2023

METHODS

A single-center feasibility study

- Staff educated on NIRS implementation
- NIRS monitoring algorithm placed on ECMO cart at bedside

Study population

Inclusion criteria: all adult and pediatric patients initiated on pECMO

Δ

25 -

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0%

Exclusion criteria: any patient cannulated to pECMO without an established ECMO flow

Outcome Measures	 100% of pECMO patients to have NIRS applied
Process Measures	 NIRS applied ≤ 1 hr of bedside ECMO cannulation/admission with ECMO Order placed for NIRS in EMR NIRS hourly data entered in EMR Manually documented NIRS data compared to device-recorded data for accuracy (+/-5% of device value)
Balancing Measures	 Survey on challenges in implementing NIRS 个 bedside LE angiography in pECMO patients

Incorporating Near-Infrared Spectroscopy (NIRS) in Peripheral Perfusion Monitoring during Peripheral Extracorporeal Membrane Oxygenation (pECMO) for Cardiac Support in Adults and Pediatrics- A Feasibility Study Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium Monika Tukacs, BSN, RN, CCRN, Erin lannacone, MD, Ankur Srivastava, MD, Wenna Xi, PhD, Umesh Joashi, MD, Robert Kim, MD May 24, 2023



RESULTS

- 100% of patients pECMO had NIRS applied
- (CTICU n=3; PICU n=0)
- Cannulations: pt #1 RFV+LA/RFA/RSFA, pt #2 and #3 LFV/RFA/RSFA
- 100% of pECMO patients had NIRS data documented in the EMR
- NIRS applied in \leq 1hr 33.3% (n=1), mean 1hr 46 min, median 1hr 55 min
- 1/3 of patients on pECMO had NIRS orders placed
- Compliance in hourly NIRS documentation in EMR 87.98%, 8/397 hourly slots missing
- Inaccuracy of EMR vs NIRS data documentation observed in 31.4%, 82/261 instances
- Number of alarms with inadequate PP (under 20% over 20 min): by device 6 (Graph 1), by RN/ EMR 1 (pt #1, left calf)
- Number of bedside LE angiography 0 Staff survey NIRS monitoring (n=19/40).
- --- No challenges RN (35.7%), provider (42.7%)
- --- Most challenging RN NIRS recording in EMR (35.7%), provider location of NIRS records in EMR (35.7%) (Graph 3 and 4)

CONCLUSIONS

- It is feasible to implement NIRS monitoring in patients on pECMO by staff education, practice audits and end-user feedback.
- While applying NIRS \leq 1hr is ideal, \leq 2.5 hrs may be a more reasonable ad attainable goal.
- Automatic entry of NIRS data would prevent errors of manual entry and lessen RN workload. A universal documentation location in EMR would provide efficient accessibility.
- Study limitations: low sample size, some missing data in EMR and device
- Further studies needed (1) with larger sample and (2) to assess correlation between device and physical assessment considering inadequate PP. NEXT STEPS

Continue data collection

- Add NIRS monitoring for pECMO to NYP policies (ECMO Adult CC 1189, ECMO PEDS 1157) Add a dedicated section for NIRS data in ECMO
- Flowsheet/ EMR

 Allow automatic NIRS data entry into the EMR

REFERENCES

Patton-Rivera, K., Beck, J., Fung, K., Chan, C., Beck, M., Takayama, H., & Takeda, K. (2018). Using near-infrared reflectance spectroscopy (NIRS) to assess distal-limb perfusion on venoarterial (V-A) extracorporeal membrane oxygenation (ECMO) patients with femoral cannulation. Perfusion, 33(8), 618–623. <u>https://doi.org/10.1177/0267659118777670</u>

Jessica Snead PharmD, Felicia A. Mendelsohn MD, Mangala Rajan MBA, Jane Seley DNP, Alison Schur PA-C, Melina Manolas MD, Gabrielle Ramirez BA, Jennifer I. Lee MD May 24, 2023

Background

- There is a strong association between hyperglycemia and poor clinical outcomes in hospitalized patients
- Virtual Glycemic Management Service (VGMS) consults have improved glycemic outcomes for hospitalized patients at other academic centers
- A structured discharge plan should be tailored to the individual patient



Percent of Patients Prescribed GDMT at Discharge December 2021 on 5N, 5C, 5W



Objective/Aim Statement

We aim to increase the % of in-target blood glucose levels (BG 70-180 mg/dL) by 3% and transition all adult inpatients with diabetes on medicine floor units 5N, 5C, 5W, and 11SA to guideline directed medical therapy (GDMT) at discharge



Transitions of Care Evaluation Combined with <u>a</u> Virtual Glycemic Management Service to Impact Inpatient Blood Glucose Goals (TEAM-Glucose)

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium



GDMT inpatient & outpatient

Design/Methods

- Study Period: January 2022 Present
- Setting: Medicine floor units 5N, 5C, 5W, and 11SA
- Study Population: Adult inpatients with BG <70 mg/dL
- and/or >200 mg/dL in 24 hours
- Exclusion criteria: Endocrine consult following or pregnancy









Conclusions

Next Steps

- hypoglycemia)

Background

The 21st Century Cures Act mandates sharing electronic health records (EHRs) with patients.

Per NY State law, EHR portals for patients 12 to 17 years old should be registered allowing adolescents to access their medical record.

Given variability in state laws, provider opinions, EHR systems and technological limitations, there is no consensus on best practices to achieve adolescent clinical note sharing at scale.

Within our health system, most of the 30,000+ portal accounts for patients 12-17 years old were estimated to be inaccurately registered with a parent as the primary account holder.

Additionally, only one third of patients 12-17 had a proxy assigned to their account.

Objective

By September 2022, all previously inaccurately registered adolescent portal accounts will be reregistered with appropriate adolescent emails.

By April 2023, accuracy of registration will be maintained through further educational efforts with incorrectly registered accounts being less than 20% of total newly registered patients every month after September 2022.

Methods

In preparation for interventions:

- Query built to assess portal account registration accuracy. 80.0% of 12 to 17-year-old patient portal accounts were classified as inaccurately registered (IR) under a parent or registration accuracy unknown (RAU).
- Proxy portal configurations were optimized.

Interventions:

- Distribution of standardized portal enrollment training.
- 2. Patient outreach email campaign to re-register 29,599 portal accounts.
- 3. Restriction of access to remaining IR and RAU accounts. Adolescent clinical note sharing was then implemented.
- 4. Subsequently, directed training was distributed to specific registration teams with historically high inaccuracy in adolescent portal registrations.

Improving Patient Portal Enrollment Accuracy for Adolescents & Proxies Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

Jonathan Elias, MD; Travis Gossey, MD; Wenna Xi; Susan Bostwick, MBA, MD; Marianne Sharko, MD; Laura Robbins, MD; Rachel Lewis, MD; Brock Daniels, MD | May 24, 2023



Percent of Total Newly Registered Adolescent Patient Portal Accounts Over Time



Average Number of Proxies Assigned Per Patient Portal Account Over Time



Results Continued									
Interventions 1-3 Significance by Portal Registration Category									
Portal Account	Intervention 1: Training Distribution			Intervention 2: Questionnaire Assignment			Intervention 3: Account Restriction		
Culogoly	3/25/20 22	5/27/202 2	p-value*	6/10/202 2	8/7/202 2	p-value*	8/14/2022	10/16/202 2	p- value*
Ν	32,223	35,218		35,374	34,719		34,706	36,011	
Accurately Registered Portal Accounts	19.0%	19.6%	0.049	19.7%	27.6%	<0.001	28.2%	28.7%	0.147
Inaccurately Registered Portal Accounts	35.0%	34.0%	0.006	34.0%	27.3%	<0.001	26.8%	25.9%	0.006
Accuracy Unknown Registered Portal Accounts	46.0%	46.4%	0.287	46.3%	45.2%	0.002	45.1%	45.5%	0.260
* Two sample z-test for proportions comparing immediately pre-intervention to 2 months post-								st-	
intervention. P-values significant at 0.05 level marked in bold.									
Intervention 4 Training Data									

Registration Department HIP 2 COL ORTHOPEDICS HRK 5 COL CHILD NEURO MAN 21W86 CHILD NEURO **/AN 51W51 370 ORTHOPEDICS ASCH N8 COL ORTHOPEDICS 500GRND ORTHOPEDICS CDNJ** ORTHOPEDICS CALL CENTER WCH 155WPLN 100 ORTHOPEDICS WCH 1PON 1 ORTHOPEDICS WCH 688WP 210 CHILD NEURO WCH 693WP ORTHOPEDICS WCMC PEDIATRICS PRIMARY CARE E 85TH S Total Trained:

- increased proxy portal account adoption.

Conclusions

A multi-step intervention process can be utilized to effectively implement adolescent clinical note sharing at a large scale across care settings. Improvements to EHR technology, portal enrollment training, adolescent/proxy portal settings, detection and automation in re-enrollment of inaccurate portal accounts are needed to maintain integrity of adolescent portal access.

Next Steps

- way.
- to prevent inaccurate portal registrations.

Total Trained	Training Completion Rate
3	75%
7	77.78%
5	100%
2	25%
2	100%
2	100%
53	80.30%
5	83.33%
5	100%
3	100%
2	100%
7	87.50%
96	

Proxy portal enhancements with interventions deployed

Further directed training of individual registration groups has yet to show significant change in registration practices.

Continue directed distribution of training materials with registration and access teams, providing feedback along the

Implement additional new EMR guardrails soon to be available

Begin an educational initiative, aimed at improving adolescent awareness of their medical access capabilities.

Background

- Measurement Based Care (MBC) in psychiatry refers to the use of validated clinical measurement instruments for assessment, treatment, and evaluating clinical outcomes.
- It is important to become familiar with the use of MBC as our healthcare system is moving towards value based care.
- Average number of active patients in the Cornell Psychiatry Child Outpatient Clinic is 110

Problem Statement

There was no uniform way to track outcomes in the clinic including collecting standardized outcome data, tracking treatment response and determining standard discharge criteria.

Objective/Aim Statement

Have 75% of patients in the child psychiatry Outpatient clinic complete scales monthly based on individual diagnoses over 6 months.

Project Goals

- Implement monthly administration of validated scales PHQ-8, GAD-7 and Promis Sleep Disorders Scale through education and feedback using iterative PDSA cycles
- Demonstrate preliminary evidence of the benefit of MBC in our patient population

Design/Methods

- This is a feasibility study
- Using Redcap, each trainee administered scales for depression, anxiety and/or insomnia to their patients monthly (based on patient's individual diagnosis)
- Each patient had a QR code allowing them to complete the scales on their cell phone whether in office or virtual appointment

Measurement Based Care in the Child and Adolescent Psychiatry Outpatient Department Annual WCM Quality Improvement & Patient Safety Poster Symposium Alma Spaniardi MD | May 24, 2023 Contact: als9133@med.cornell.edu



 Data is from two C&A fellows who piloted the • Percentage of PHQ-8 and GAD 7 was over 75% • The PROMIS sleep study was not linked to the other scales resulting in a lower completed survey rate

• It is feasible to have trainees administer MBC to

• It is important to leverage technology to simplify the

• Epic is a better choice for data collection

	Steps to Overcome
	Mode of delivery and choice of scales, Change to Epic
sed	Cheat sheet, fellow champions, workflow support, change to Epic
ninister	Monthly reminder email

• Institute MBC administration to all patients in the child psychiatry outpatient clinic starting July 2023 • Work with Epic on changes to further facilitate

• Replicate this MBC initiative in an upcoming project at the Cornell undergraduate campus in Ithaca • Consider expanding MBC use into the Cornell Adult

Title: Identifying opportunities for diagnostic stewardship in UTI testing in pediatrics

Authors: Karen P. Acker, MD; Michael Alfonzo, MD; Tess Gray; Taylor Dempsey, PAC; Lisa Saiman, MD, MPH; Lars F. Westblade, PhD, D; Sabrina Racine-Brzostek, MD, PhD; Nicole Gerber, MD

Department: Emergency Medicine and Pediatrics

1. Statement of the Problem:

Reflexive urine culture testing, a strategy whereby urine cultures (Ucxs) are only performed on samples with pyuria, is increasingly being used to reduce unnecessary Ucxs, healthcare costs, and inappropriate antibiotics.

2. Objective/Aim of the study:

To support implementation of a reflexive Ucx order for pediatric patients <18 years, we assessed the proportion of Ucxs that would be avoided with reflexive urine culture testing in patients <18 years who presented to the pediatric emergency department (ED).

3. Project Design/Methods:

A retrospective review of patients <18 years with a Ucx performed from January to May 2022 in an urban tertiary care pediatric ED was performed. A positive Ucx was defined as \geq 50,000 CFU/ml for catheterized specimens and \geq 100,000 CFU/ml for clean catch or unspecified specimens. Pyuria was defined as \geq 10 WBC/HPF. "True UTI" was defined as a positive Ucx with a consistent clinical presentation (e.g., fever, dysuria).

4. Results:

During the study period, 658 patients <18 years had Ucx sent of which 46 (7%) were positive. In all, 407 (61.9%) Ucx were obtained by clean catch, 233 (35.4%) by urethral catheterization, 2 (0.3%) by Foley catheter, and 16 (2.4%) were unspecified. Among the 46 positive cultures, 32 (69.6%) had \geq 10 WBC/HPF and 55 (9.0%) of 612 negative cultures had \geq 10 WBC/HPF. Of the 14 patients with positive Ucx without pyuria, 8 had a contaminated sample or asymptomatic bacteriuria, 3 had urologic abnormalities, and 3 were infants <3 months. Three of the 14 patients (21.4%) had a consistent clinical presentation for UTI and were treated with antibiotics: two were infants <3 months and one had urologic abnormalities. We estimated a cost saving of ~\$200,000 had reflexive testing been in place.

5. Conclusions:

A reflexive Ucx for specimens with ≥ 10 WBC/HPF would have reduced the number of Ucx substantially as 571 (86.8%) of 658 Ucx would not have been performed. To prevent missed diagnoses of UTI, children <2 years and children with urologic abnormalities should be excluded from this diagnostic stewardship intervention.



Reducing ionizing radiation exposure for pediatric patients with concern for intracranial shunt malfunction through implementation of a clinical pathway with QI methodology

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Souweidane, MD⁶

Division of Pediatric Emergency Medicine, Departments of Emergency Medicine¹ and Pediatrics² Weill Cornell Medical School³, Department of Radiology⁴, Department of Surgery⁵, Department of Neurosurgery⁶ New York-Presbyterian Hospital / Weill Cornell Medicine, New York, NY

Background

- Intracranial shunt (IS) placement is one of the most common neurosurgical procedures and is associated with high rates of revision.
- Evaluation of patients in our Pediatric Emergency Department (PED) with clinical concern for IS malfunction includes imaging with head computed tomography (CT) and shunt series radiographs (XR).
- Many institutions are moving towards MRI to reduce radiation exposure

SMART Aim

Reduce exposure to ionizing radiation in children with suspected IS malfunction by increasing use of fast-sequence brain MRI (fsMRI) from 40% to 80% between June 2022 and June 2023.



Study Design:

Observational QI project with sequential experimentation

Patient population:

Methods

Patients ≤18 years-old presenting to the PED with an IS and concern for malfunction

Outcome Measures:

- 1) % eligible patients receiving fsMRI
- 2) % patients receiving shunt series XR

Process Measures:

Time from arrival to MRI order and completion

1. Missed IS malfunction

Balancing Measures:

- 2. Clinical decompensation while awaiting MRI
- 3. PED LOS

: Analysis:

Run charts were utilized to display and analyze data. Run chart rules were applied to detect signal of change.

Plan Do Study Act Cycles



Results

33 patients presented to the PED with IS and concern for malfunction 17 patients were eligible for fsMRI, 14 patients were not eligible 15 patients were imaged with fsMRI





Median % eligible patients receiving fsMRI increased from 40% to 100%

There was no decrease in number of patients receiving shunt series XRs

Time from arrival to MRI order and completion was unchanged pre-/post-launch (around 240 minutes from arrival to completion)

No patient had missed IS malfunction or clinical decompensation while awaiting MRI. ED LOS was unchanged.

Impact and Future Directions

- Implementation of a clinical pathway prioritizing reduced ionizing radiation exposure in children with concern for IS malfunction increased the number of patients receiving fsMRI.
- There was no change in rates of shunt series XR.
- Future steps include early fsMRI ordering and strategies to reduce shunt series XR in select patients.



Title: "Decrease the Door to CT Head Time by 10% in Acute Stroke Activations"

Authors: Andrew Jacobowitz PA-C, Dr. Dave Bodnar, Elissa Crum RN, Dr. Matt McCarty, Dr. Saad Mir, Hannah Garetano, Brenda Sauer, Joanna Urquijo, Mina Rofil PharmD, James Cox

Department: Emergency Medicine

1. Statement of the Problem:

While our emergency medical technicians (EMTs) and triage nurses are trained to quickly recognize acute strokes and transient ischemic attacks (TIAs), critical time is potentially lost at bedside before the CT Head (CTH) is completed. The typical stroke patient loses 1.9 million neurons with each additional minute of delayed treatment. (Stroke. 2006;37:263-266). Following the CTH, neurology team can review the images, examine the patient and determine if further intervention or treatment is indicated.

Since every second matters in an acute stroke, expediting the CTH by a few minutes can make an enormous difference in minimizing and even reversing the disabling effects of a stroke. Additionally, there are regulatory requirements to complete the door to brain imaging within 25 minutes and door to tPA within 60 minutes.

2. Objective/Aim of the study:

The objective of this study is to reduce the time from arrival at Lower Manhattan Hospital's (LMH) Emergency Department (ED) to CTH in patients presenting with concern for an acute stroke. Once a stroke is recognized by EMS or by the triage nurse, the patient is rapidly assessed by the provider and nursing team prior to immediate transfer to CT. This proposed workflow would save unnecessary time transporting the patient to a room first, obtaining a full history and performing a physical exam prior to transporting to imaging. If the patient is not protecting their airway, seizing or has grossly abnormal vital signs, they are transferred to a room for initial stabilization prior to imaging.

3. Project Design/Methods:

We used a PDSA cycle to complete this project, beginning with a process map of our current workflow for stroke patients who arrive via ambulance versus walk-in triage. Next, we reviewed data looking at patient arrival time to CTH exam start time. We determined that time could be saved by abbreviating to a focused history and physical examination prior to transporting these patients directly to CT, utilizing a brief medical screening exam (MSE) in triage. We created a workflow where all stable stroke patients within 6 hours of last known normal time would be rapidly evaluated in triage then transported directly to CT scan. Our leadership team and select nursing champions used daily messaging at in-person huddles and gathered real time feedback about the new process from frontline teams.

4. Results:

We were able to decrease the door to CTH exam start time by 10% (15 minutes to 13.5 minutes) with this triage intervention. More notably, our door to needle time went from a median of 54 minutes preintervention to 43 minutes post- intervention. There were 4 stroke patients who received tPA within 36 minutes from arrival in the ED.

5. Conclusions:

We concluded that a brief MSE is sufficient to determine stability and allow for expedited imaging as a priority in acute stroke patients. We recognize there is opportunity to even further decrease the door to CTH times by taking patients straight to CT and spending less time in triage. Some important lessons that we learned were the value of frontline champions, daily feedback from those who participated in this new workflow and more frequent analysis of data to trend progress. These results are potentially generalizable across NYP ED sites where stroke patients are not taken directly to CTH following initial triage.



"Decrease the Door to CT Head Time by 10% in Acute Stroke Activations"

Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

Andrew Jacobowitz PA-C, Dr. Dave Bodnar, Elissa Crum RN, Dr. Matt McCarty, Dr. Saad Mir, Hannah Garetano, Brenda Sauer, Joanna Urquijo, Mina Rofil PharmD, James Cox | May 24th, 2023

Problem Statement:

While our emergency medical technicians (EMTs) and triage nurses are trained to quickly recognize acute strokes and transient ischemic attacks (TIAs), critical time is potentially lost at bedside before the CT Head (CTH) is completed. The typical stroke patient loses 1.9 million neurons with each additional minute of delayed treatment (Stroke. 2006;37:263-266). Following the CTH, the neurology team can review the images, examine the patient and determine if further intervention or treatment is indicated. Since every second matters in an acute stroke, expediting the CTH by a few minutes can make an enormous difference in minimizing, and even reversing the disabling effects of a stroke. Additionally, there are regulatory requirements to complete the door to brain imaging within 25 minutes and door to tPA within 60 minutes.

Objective/Aim Statement:

The objective of this study is to reduce the time from arrival at Lower Manhattan Hospital's (LMH) Emergency Department (ED) to CTH in patients presenting with concern for an acute stroke. Once a stroke is recognized by EMS or by the triage nurse, the patient is rapidly assessed by the provider and nursing team in ambulance triage prior to immediate transfer to CT. This proposed workflow would save unnecessary time transporting the patient to a room first, obtaining a full history and performing a physical exam prior to transporting to imaging. If the patient is not protecting their airway, seizing or has grossly abnormal vital signs, they are transferred to a room for stabilization prior to imaging.

Design/Methods: We used a PDSA cycle to complete this project, beginning with a process map of our current workflow for stroke patients who arrive via ambulance and walk-in triage. Next, we reviewed data looking at patient arrival time to CTH exam start time. We determined that time could be saved by abbreviating to a focused history and physical in triage prior to transporting these patients directly to CT. A workflow was created where all stable stroke patients within 6 hours of last known normal time would be rapidly evaluated in triage then transported directly to CT scan. Our leadership team and select nursing champions used daily messaging at in-person huddles and gathered real time feedback about the new process from frontline teams.

Results: We were able to decrease the door to CTH exam start time by 10% (15 minutes to 13.5 minutes) with this triage intervention. More notably, our door to needle time went from a median of 54 minutes pre-intervention to 43 minutes post-intervention. There were 4 stroke patients who received tPA within 36 minutes from arrival in the ED.

	Pre-Study	Post-Study	Difference
Patients	115	172	
Male	50	79	
Female	65	93	
Average Age	61	62	
Average Arrival to Start (min)	25.7	22.2	13.6%
Average Arrival To Completion (min)	38.7	35.7	
Median Arrival to Start (min)	15	13.5	10.0%
Median Arrival to Completion (min)	28	26.5	

	Total # tPA cases	Median Door to tPA time	tPA cases within 40 min	% tPA cases within 40 min
Jan 2022 - Sept 2022 (Pre)	21	54 min	4	19%
Oct 2022 - May 2023 (Post)	12	43 min	5	42%

Conclusions/Lessons Learned:

We concluded that a brief medical screening exam is sufficient to determine stability and allow for expedited imaging as a priority in acute stroke patients. We do recognize that there is opportunity to further decrease the door to CTH times by taking patients directly to CT and bypassing our triage area. Some important lessons that we learned were the value of frontline champions, daily feedback from those who participated in this new workflow and more frequent analysis of data to trend progress. These results are potentially generalizable across NYP ED sites where stroke patients are not taken directly to CTH following initial triage.

Next Steps:

Unfortunately, the LMH ED CT scanner is scheduled to be replaced and will be out of service for many weeks in the near future. Any additional changes to this new acute stroke process will be postponed until the construction is completed. Meanwhile, this new workflow is integrated into triage nurse orientation. New Advanced Practice Providers (APPs) and Attendings are educated about this stroke process during their LMH onboarding.

Electronic Referral of Potential Organ Donors Increases Timely Notification Rates and Saves Clinician Time

Hanson Hsu, Elaine Hui-Martinez, Yiye Zhang, Wade Liu, Matthew Laghezza, Geeta Nastasi, Richard Trepp

Department: Emergency Medicine

Statement of the Problem:

The increasing number of deceased organ donors and transplants has been accompanied by a decrease in the number of organs per donor. Rapid communication between transplant hospitals and Organ Procurement Organizations (OPOs) is crucial for identifying potential organ donors. The universal adoption of electronic health records (EHRs) has created opportunities for technologic improvements in healthcare delivery processes. However, access to the EHR by OPO personnel has been identified as a barrier to timely identification of potential donors. Delays in referral have been shown to increase the number of lost potential donors.

Objective/Aim of the Study:

This study aims to highlight the integration of an interoperable electronic referral (iReferral) system through the enterprise EHR to the regional OPO EHR. The impact on medical practitioner workflow, referral rates, and timeliness before and after the intervention is examined.

Project Design/Methods:

The study was conducted at NewYork Presbyterian, a healthcare system comprising 11 member hospitals. Referrals to the OPO were previously made via telephone call, but with the implementation of the iReferral system, clinicians could electronically file referrals through the EHR. Referral rates and the percentage of referrals made within one hour of eligibility were compared before and after the implementation of the iReferral system.

Results:

Before the intervention, a total of 1841 referrals were made, with a referral rate of 70% within one hour of eligibility. After the implementation of the iReferral system, the total number of referrals increased to 1662. The referral rate within one hour significantly increased to 90%. The study also observed time savings for clinicians using the iReferral system compared to telephone calls.

Conclusions:

The integration of an interoperable iReferral system improved referral rates and timeliness of organ donor identification. The findings emphasize the importance of electronic support systems in increasing organ donations. The study highlights the need for continued efforts to integrate electronic referral systems within EHRs to facilitate timely referrals and enhance user ease. Future improvements could include automated systems for earlier identification of potential organ donors.

2023 Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

Electronic Referral of Potential Organ Donors Increases Timely Notification Rates and Saves Clinician Time

Hanson Hsu, Elaine Hui-Martinez, Yiye Zhang, Wade Liu

Matthew Laghezza, Geeta Nastasi, Richard Trepp

Problem Statement

Since 2010, the number of deceased organ donors and organ transplants have increased while the number of organs per transplant donor have decreased.

Objective / Aim Statement

Systematic reviews of best practices by Organ Procurement Organizations (OPO) have consistently highlighted the need for rapid communication between transplant hospitals and the OPO network to expediently identify potential organ donors. NewYork Presbyterian's Donor Council sought and implemented a home-grown electronic referral system integrated with the enterprise EHR to electronically link to our Organ Procurement Organization's LiveOnNY computer referral system.

Design / Methods

Clinicians (physicians, advanced practice providers, and registered nurses) were shown the alert and given the ability to electronically file a referral to the OPO directly through the EHR. Declining the alert required acknowledgement and placement of referral by usual telephone means. An alert for duplicate referrals (with the original case referral number) was displayed to users accordingly.



Results

The success rate of referrals within 1 hour increased to 90% (1496 calls, 2-sided p-value < 0.001). An additional observation of potential time savings to clinicians making telephone calls versus iReferral, given a conservative and anecdotal estimation of 10 minutes/p for vented patients and 20 minutes for non-vented patients per telephone call versus an average of 1 minute of alert response time was <1/10 time> times number of calls = 35,280 minutes in 2021.

Conclusion / Lessons Learned

Our results demonstrate a successful implementation of an electronic referral system from donor hospital to organ procurement organization with regards to number of referrals and time savings which is in line with observations by other authors.

Next Steps

A future improvement would include a fully-automated system that relies on an algorithm or machine learning for earlier identification of potential organ donors. Successful implementation of our electronic iReferral requires the careful coordination and collaboration of resources.

Leading INNOVATION **SCHOLARSHIP** Emergency COMPASSION Care

- NewYork-Presbyterian

Qualitative and Quantitative Medical Student Perspectives on Board Experiences at Weill Cornell Community Clinic

Nicole Palmer¹, Elizabeth K. Benitez¹, Tiffany Merlinsky¹, Ashita S. Batavia², Pamela Charney²

- 1. Weill Cornell Medical College, Weill Cornell Medicine, New York, NY, 10065,
- 2. Department of Medicine, Weill Cornell Medicine, New York, NY, 10065

Background: The Weill Cornell Community Clinic (WCCC) provides primary care services for underinsured patients. Medical students support this mission by working under the supervision of a board-certified physician and facilitating care. Medical students can also serve in an administrative role in the WCCC in a variety of roles to ensure its smooth running. This abstract describes the role that student run free clinics (SRFC) play in the professional development of medical students that both volunteer for and work within the WCCC.

Aim of the study: Evaluate the impact of medical student's involvement with a SRFC as a board member on their personal and professional development.

Methods: A cross-sectional quality improvement study was performed with board members of an academic based medical SRFC. An online survey comprising 13 questions on a 7-point likert scale and three free-response questions were administered to all current and past members of the student board since 2019 to evaluate how working at the WCCC influenced their professional career path. Data were analyzed using descriptive statistics in Excel 2016 and free response comments were evaluated with qualitative content analysis.

Results: A total of 72 of 102 current and past M1 student board members responded across four medical school classes (70.6% response rate). A majority indicated that their time with the SRFC was a valuable educational experience (90.4%). Among survey responders, 90.3% report they are interested in working with underserved populations after graduation and 84.7% agree that volunteering with the SRFC positively influenced their attitude toward working with these populations. Qualitative responses indicated that working with the WCCC provided a greater understanding of the social barriers patients face, prompted students to think critically about how to continue to treat underserved populations in their career, and reaffirmed career choices for students already planning on working with underserved patients.

Conclusions: To our knowledge, this is the first study that has evaluated the impact of working as a board member in a SRFC has on student attitudes and professional development. Results indicate that a majority of student board members are interested in working with underserved populations and qualitative comments reflected the positive role that WCCC played in that decision. This study indicates that medical students that volunteered and worked for the WCCC learned about social barriers, promoted thoughts about future careers, and reaffirmed student's career choice.

Qualitative and quantitative medical student perspectives on board experiences at Weill Cornell Weill Cornell Community Clinic

Nicole Palmer¹, Elizabeth K. Benitez¹, Tiffany Merlinsky¹, Ashita S. Batavia², Pamela Charney²

¹Weill Cornell Medical College, Weill Cornell Medicine, New York, NY, 10065, ²Department of Medicine, Weill Cornell Medicine, New York, NY, 10065

Background

- The Weill Cornell Community Clinic (WCCC) is a student run free clinic (SRFC) in New York City.
- WCCC provides underserved and uninsured patients with no-cost primary care services.
- Exposure to vulnerable populations is an invaluable adjunct to the medical school experience but involvement as a board member is unclear. ^{1,2}
- The board is composed of volunteer first-year medical students that conduct scheduling, referrals, outreach, etc.

Themes of Student Reflections

Learning about social barriers

"Working with WCCC and being involved with research on barriers to referrals taught me a lot about the challenges people face trying to access care"

Preparing for future careers

"It made me think about whether I want to [work with underserved patients] as a PCP or other ways (advocacy, policy, etc.)."

"I would like to look into making surgery more accessible in my future practice."

• The goal of this study is to describe the educational value for medical students participating in a student run free clinic as volunteers *and operators.*³

Methods

Results

- A majority (90.4%) indicated that their time with WCCC was a valuable educational experience.
- Participation positively affected the majority's (60.3%) overall sense of wellbeing during medical school.

Reaffirming career choices

"It reaffirmed why I wanted to work with the underserved in the first place and gave me new perspective on how I can care for the underserved."

Figure 1: Percentage of students that agree with the following statements:

A. "The WCCC positively affected my overall sense of wellbeing during medical school."

B. "The WCCC positively influenced my attitude toward working with underserved populations."

Most students (90.3%) report they are interested in working with underserved populations after graduation and 84.7% agree that working with the WCCC positively influenced this attitude.

Somewhat agree 🛛 📕 Agree 🖉 Strongly agree

<u>Conclusion</u>: Student board experiences with WCCC are valuable for personal and professional development.

- Most board members are interested in working with underserved populations after graduation; their experiences with WCCC positively affected that.
- Student's overall wellbeing at medical school is positively impacted by their time volunteering with a WCCC.
- Future work will evaluate WCCC alumni on their involvement with vulnerable populations.

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Title: Simulation Training Can Improve Internal Medicine Residents' Knowledge and Comfort with Cardiac Point-of-Care Ultrasound to Diagnose Acute Cardiovascular Conditions

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Department:

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3 Division of Critical Care and Hospital Medicine, Department of Pediatrics, Columbia University Vagelos College of Physicians and Surgeons and NewYork-Presbyterian, New York, NY, USA 4 Weill Cornell Medicine NewYork-Presbyterian Simulation Center, NewYork-Presbyterian Hospital/Weill Cornell Medical Center, New York, NY, US

1. Statement of the Problem: Point-of-care ultrasound (POCUS) has emerged as a valuable tool for guiding the triage and management of life-threatening acute cardiovascular conditions in the inpatient setting. Few studies have examined the value of dedicated simulation-based POCUS training in improving Internal Medicine residents' knowledge and comfort with cardiac POCUS to diagnose acute decompensated systolic heart failure and large pericardial effusion.

2. Objective/Aim of the study: This study aimed to assess the effectiveness of dedicated simulation-based point of care ultrasound training for Internal Medicine residents to improve confidence and proficiency in evaluating acute decompensated systolic heart failure and large pericardial effusion

3. Project Design/Methods: This study utilized a simulation intervention to train first-year Internal Medicine residents how to perform cardiac POCUS and use it to identify multiple cardiac conditions. Participants were queried about their self-appraised cardiac POCUS knowledge, objectively tested on their cardiac POCUS knowledge, and surveyed about their comfort with cardiac POCUS tasks before andimmediately after their training session, as well as three months later.

4. Results: Participants' self-appraised knowledge regarding cardiac POCUS increased significantly from pre- to immediately post-intervention and pre- to 3 months post-intervention (31% to 83%, p < 0.001; 31% to 73%, p < 0.001). The mean number of correct responses increased significantly from pre- to immediately post-intervention and pre- to 3 months post-intervention (3.9 to 4.9, p < 0.001; 3.9 to 4.8, p = 0.006). The percentage of participants who felt comfortable identifying major cardiac structures, decompensated systolic heart failure findings, and a large pericardial effusion using POCUS increased significantly from pre- to immediately post-intervention and pre- to 3 months post-intervention.

5. Conclusions: Simulation-based training can successfully teach Internal Medicine residents the fundamental skills of cardiac POCUS as well as how to utilize the modality to diagnose multiple acute cardiovascular conditions. These findings can inform the development of POCUS curricula for first-year Internal Medicine residents.

Simulation Training Can Improve Internal Medicine Residents' Knowledge and Comfort with Cardiac Point-of-Care Ultrasound to Diagnose Acute Cardiovascular Conditions

Mikiyas Desta, MD | May 23, 2023

Problem Statement

Point-of-care ultrasound (POCUS) has emerged as a valuable tool for guiding the triage and management of life-threatening acute cardiovascular conditions in the inpatient setting. Few studies have examined the value of dedicated simulation-based POCUS training in improving Internal Medicine residents' knowledge and comfort with cardiac POCUS

Objective/Aim Statement

Effectiveness of dedicated simulation-based POCUS training for Internal Medicine residents to improve confidence and proficiency in evaluating acute decompensated systolic heart failure and large pericardial effusion

Design/Methods

utilized a simulation intervention to train first-year Internal Medicine residents how to perform cardiac POCUS and use it to identify multiple cardiac conditions. Participants were queried about their self-appraised cardiac POCUS knowledge, objectively tested on their cardiac POCUS knowledge, and surveyed about their comfort with cardiac POCUS tasks before and immediately after their training session, as well as three months later.

Results

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Conclusions/Lessons Learned

Simulation-based training can successfully teach Internal Medicine residents the fundamental skills of cardiac POCUS as well as how to utilize the modality to diagnose multiple acute cardiovascular conditions.

Next Steps

These findings can inform the development of POCUS curricula for first-year Internal Medicine residents.

Weill Cornell Medicine - NewYork-Presbyterian

Improving Transitions of Care with a Community-Based Palliative Care Program: Results from a Pilot Project for Advanced Solid Tumor Oncology Patients Christine A. Garcia, MD, MPH, Linda Morellino, LCSW, Christopher Comfort, MD, Milagros Silva, MD, Ron Adelman, MD, Sarah Waxse, LCSW, Kelly Cummings, MD

Background

- Palliative care improves outcomes for patients with advanced cancer, including improved quality of life, reduced symptom burden, reduced health care resource use, and potentially lengthened survival.¹
- Inpatient chart review data of patients seen by the WCM solid tumor oncology consult service from 10/2020-1/31/2021, demonstrated that around 28% of patients who died within 6 months of hospital admission were discharged to hospice.
- Multidisciplinary Root-Case-Analyses (RCAs) showed that hospice underutilization among patients with advanced cancer at the end of life can result in patients not receiving the full benefit of hospice
- Late referral to hospice causes significant distress to patients, families, caregivers, and staff.

Results

Outcome Measures

 From February 1, 2022- December 31, 2022, a total of 34 patients were referred for community based palliative care service

Project Aim

• To assess the feasibility and utility of incorporating concurrent community-based palliative care nurse practitioner services for patients with advanced solid tumor cancer.

Methods

- The pilot was launched initially in thoracic oncology in February 2022.
- It was expanded to all solid tumor oncology patients in April 2022.

Identify eligible patients with advanced solid tumor malignancy	 Can still be on treatment or clinical trial, PT/OT Need for symptom management, GOC, family support
Refer to outpatient palliative care NP program	 Calvary palliative care NP performs in-home needs' assessment for patients
Provide coordinated palliative care with additional support	 Home and virtual visits with Calvary NP Palliative care quality metrics documented by Calvary NP
Transition to hospice when appropriate	 "Bridge" to hospice

Process Measures

 Process measures including pain scores, completion of advanced care planning documents, depression scores, treatments given while in pilot, number of hospitalizations, as well as patient-reported outcomes are ongoing.

Conclusions

- This pilot demonstrates that community-based palliative care can bridge patients to palliative care services and hospice at the end of life
- Patient not taken under care may have been referred "too late" in their course, when actively dying.
- Reminders to oncologists and regular patient review for potential need for community-based services are important to shifting culture towards earlier palliative referral.
- Further PDSA cycles aim to improve the number and timing of referrals to this pilot program and evaluate the impact of hospice utilization at the end of life.

Quality Improvement Initiative to Increase Contraception Documentation in an Academic Rheumatology Clinic

Caroline H. Siegel, Deanna Jannat-Khah, Avi Mikhaylov, Erika Abramson, Nancy Pan, Lisa R. Sammaritano || Weill Cornell Medicine Department of Medicine/Hospital for Special Surgery Division of Rheumatology

1. Statement of the Problem:

Rheumatology guidelines recommend contraceptive counseling for individuals with rheumatic disease (RD) and reproductive capacity. Only one-third of reproductive aged women with RD are prescribed effective contraception even when prescribed teratogenic medications. Contraception counseling and documentation by rheumatology providers – a necessary step to increase effective contraception use in at-risk patients – is poorly standardized and inadequate.

2. Objective/Aim of the study

The study aim was to increase the rate of provider documentation of contraception use for female patients aged 18-45 seen in the Hospital for Special Surgery (HSS) adult rheumatology clinic from 11% to 25% over 3 months.

3. Project Design/Methods:

We determined the baseline rate of contraception documentation for female patients aged 18-45 seen in the HSS adult rheumatology clinic in the preceding 2 years. We administered a baseline survey to clinic staff to solicit barriers to contraception documentation and desired interventions. The primary outcome measure was the percentage of eligible patients with contraception information documented in a structured electronic health record (EHR) field. The primary balancing measure was the percentage with smoking status documented in a structured EHR field. We conducted 4 PDSA cycles to address the reported barriers. We tracked the primary outcome and balancing measures at 2-week intervals over the 3-month study period.

4. Results:

The baseline rate of contraception documentation for female patients aged 18-45 seen in the HSS adult rheumatology clinic was 11%. The barrier to contraception documentation most frequently reported by clinic staff was not having been told to document this information (n=6); others were lack of awareness (n=5), time (n=3), comfort level (n=2), and not agreeing that rheumatology patients should be asked routinely about contraception use (n=1). Respondents desired education, dedicated time, scripts to guide the conversation with patients, and documentation instructions. PDSA cycles included an introductory educational session including suggested scripts and documentation instruction, an email reminder from nursing leadership, and two interim educational sessions. The rate of contraception documentation increased from 11% to 36% – and smoking status documentation rates remained steady (79%-97%) – over the study period.

5. Conclusions:

With implementation of a multi-cycle intervention targeting barriers reported by clinical staff, we achieved sustained improvement in contraception documentation, without negatively impacting smoking status documentation. Future phases of this initiative will aim to increase contraception documentation further and to increase contraceptive counseling and referrals to women's health providers for high-risk rheumatology patients.

HSS

Quality Improvement Initiative to Increase Contraception Documentation in an Academic **Rheumatology Clinic**

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium | May 24, 2023 Caroline H. Siegel, Deanna Jannat-Khah, Avi Mikhaylov, Erika Abramson, Nancy Pan, Lisa R. Sammaritano

Problem Statement

- > Teratogenic medications are commonly used to treat systemic rheumatic disease (RD), but only 1/3rd of reproductive-aged women with RD are prescribed effective contraception.
- Established rheumatology guidelines recommend contraceptive counseling for reproductiveaged patients with RD.
- Counseling/documentation by rheumatology providers a necessary step to increase effective contraception use in high-risk patients – is poorly standardized and inadequate.

Objective/Aim Statement

> To increase the rate of provider documentation of contraception use for female patients aged 18-45 seen in an academic rheumatology clinic from 11% to 25% over 3 months.

Figure 1. Pareto Chart Indicating Barriers to Contraception Documentation Based on Clinic Staff Survey

PDSA Cycle #1:

- Educational session for clinic staff
- Educational session for adult rheumatology fellows
- Administered baseline provider experience survey

PDSA Cycle #2:

Reminder email from nursing leadership to clinic staff •

PDSA Cycle #3:

Progress update and educational session at clinic staff meeting informed by results of provider experience survey

PDSA Cycle #4:

- Progress update and educational session for adult rheumatology fellows
- Division of Rheumatology Grand Rounds on overview of pregnancy termination and importance of contraception for at-risk patients with RD

Results

- \succ We surveyed clinical staff (N=17) about barriers to contraception documentation [Fig. 1]. Most frequently reported barrier (N=6): Not having been told to document contraception Others: Lack of awareness, time, comfort level, disagreeing with premise
- > Our multi-cycle educational intervention targeting barriers reported by clinical staff led to an increase in the contraception documentation rate (outcome measure) from 11% to 36%; smoking status documentation rate (balancing measure) remained steady [Fig. 2].

Conclusions/Lessons Learned

> We achieved our study aim and demonstrated sustained improvement in contraception documentation, with no decrease in smoking status documentation, over the study period.

Next Steps

> To increase contraceptive counseling and referrals to women's health providers for high-risk rheumatology patients prescribed teratogenic medications.

Stroke and Transient Ischemic Attack Care Transitions Clinic: Providing Timely, Evidence-Based Care

Evan Kolesnick, DO, MPH, MS¹; Shivani Daryani, PA;¹ Halina White, MD, MA;¹ Saad Mir, MD;¹ Dana Leifer, MD;¹ Ava Liberman, MD;¹ Alan Z. Segal, MD;¹ Matthew E. Fink, MD;¹ Hooman Kamel, MD, MS;¹ Babak B. Navi, MD, MS;¹ Neal S. Parikh, MD, MS¹

¹Clinical and Translational Neuroscience Unit, Feil Family Brain and Mind Research Institute and Department of Neurology, Weill Cornell Medicine, New York, New York

Introduction: Patients seen in the ER and hospital for stroke and TIA have variable ambulatory follow-up. Prior studies have shown that a Care Transitions Clinic (CTC) is an effective means to provide timely, evidence-based outpatient follow-up. However, many of these designs are resource intensive, do not comprehensively address secondary prevention, and exclude patients diagnosed with TIA. Our model serves to provide inclusive and holistic care that may be easily extrapolated to a variety of clinical settings.

Methods: We conducted a retrospective review of patients seen in the Care Transitions Clinic (CTC) from November 2021-December 2022. The clinic serves patients with stroke (ischemic, hemorrhagic, retinal) and TIA within 3-4 weeks of hospital/ER discharge from WCM or LMH campuses. The visits are coordinated prior to hospital discharge through a call center liaison. A stroke PA sees the patient using a visit template and staffs the visit with a supervising stroke neurologist from a scheduled rotating pool. The template focuses on etiologic work-up, secondary prevention optimization, lifestyle modification, stroke education, disposition of incidental findings (e.g., intracranial aneurysm, echocardiogram abnormalities, thyroid and pulmonary nodules), and coordination with care team members. Patients are provided follow-up with the supervising stroke neurologist for continued care. We summarized patient characteristics and quality data.

Results: Among 149 patients (119 WCM, 30 LMH) seen in CTC, mean age was 69 years and 45% were women. Diagnoses were: 67% ischemic stroke, 3% retinal event, 10% hemorrhagic stroke, and 20% TIA. The median time from discharge to CTC was 17 days (IQR, 11-25). Among patients with ischemic strokes, 99% of patients had been started on antiplatelet and/or anticoagulation medication and 93% had been started on lipid-lowering therapy. Blood pressure was >130/80 in 45%; these patients were given 7-day blood pressure logs and dedicated hypertension management follow-up. Incidental findings were frequently addressed (73 total). In our pre and post-CTC comparison, follow-up improved from 64% to 69% for WCM and from 45% to 60% for LMH. Combined for WCM and LMH, follow-up improved from 60% to 67%. The median time from stroke/TIA to follow-up improved from 40 to 22 days for WCM and 31 to 25 days for LMH. Combined, the median duration was reduced from 37 to 17 days.

Conclusion: A team-based approach achieved its goal of connecting patients with stroke/TIA to outpatient care in a timely, standardized manner. This streamlined care system has the added benefit of substantially reducing workload for housestaff.

Implementing a Care Transitions Clinic (CTC) Model for Patients with Stroke and Transient Ischemic Attack: **Feasibility and Preliminary Results**

Shivani Daryani, PA-C, MSHS; Evan Kolesnick, DO, MPH, MS; Halina White, MD, MA, BA; Saad Abdul Sami Mir, MD; Dana Leifer, MD, FAAN; Ava L. Liberman, MD; Alan Z. Segal, MD, FAAN; Matthew E. Fink, MD, Babak B. Navi, MD, MS; Hooman Kamel, MD, MS; FAAN; Neal S. Parikh, MD, MS Clinical and Translational Neuroscience Unit, Feil Family Brain and Mind Research Institute and Department of Neurology, Weill Cornell Medicine, New York, NY, USA.

BACKGROUND

- Care Transitions Clinics (CTCs) have been shown to be an effective means of emphasizing and implementing secondary prevention measures after stroke or TIA.
- Most CTCs are resource intensive and do not fully address the spectrum of predisposing vascular risk factors.
- Furthermore, patients who experience a TIA are not included in all such clinic models.
- As such, our objective was to create an accessible and _ comprehensive CTC model for stroke and TIA patients that could translate across different medical institutions and assess its impact on access to care.

METHODS

- Design : A retrospective analysis of stroke and TIA patients evaluated before and after the implementation of a comprehensive CTC model.
- Population: Adult patients discharged with stroke or TIA from Weill Cornell Medical College (WCMC) or Lower Manhattan Hospital (LMH), a community affiliate hospital.
- Descriptive measures: patient characteristics and care metrics.
- Before-after comparison outcomes of interest: Percent followup and median delay to clinic visit.
- Analyses : Standard descriptive statistics summarized CTC performance. Inferential statistics were used to compare proportion with follow-up and duration to follow-up in the prevs post-implementation periods in equivalent 3-month periods.
- Results were stratified by hospital site.

RESULTS

Descriptive Analyses

- A total of 149 patients were included (119 WCMC, 30 LMH).
- Among patients with ischemic strokes, 98.5% of patients had been started on antiplatelet and/or anticoagulation medication and 93.3% had been started on lipid lowering therapy.
- Among patients with any stroke etiology, and 55% had achieved a blood pressure goal of <130/80 mmHg by follow-up.
- A total of 91 incidental findings (0.6/visit) were addressed.

Before-after Analysis

- Pre-CTC WCMC: there was a 64% follow-up rate with a median delay of 40 days from discharge (n = 106, IQR 20-61).
- Post-CTC WCMC: there was a 69% follow-up rate with a median delay of 22 days (n = 139, IQR 14-43).
- Pre-CTC LMH: there was a 45% follow-up rate with median delay of 31 days to first neurology visit (n=33, IQR 17-40).
- Post-CTC LMH: there was a cohort had a 60% follow-up rate with a median delay of 25 days (n=42, IQR 12-33).

Outcomes				
	WCMC		LN	ЛН
	Pre-CTC	Post-CTC	Pre-CTC	Post-CTC
Percentage Follow-up	64%	69%	45%	60%
P, before vs	P < 0.001		P = 0.946	
after	P = 0.016			
Median Delay to Appointment	40 days	22 days	31 days	25 days
P, before vs	P = C	0.001	P = C	.479
after		P = <	0.001	

Funding: NIH/NIA K23 AG07352, NY State Empire Clinical Research Investigator Program. | E-mail: nsp2001@med.cornell.edu | Twitter: @NealSParikhMD

Demo	graphics	Concomitant R	isk Factors
Mean Age	69	Hypertension	94 (63.5%)
Gender		Hyperlipidemia	87 (58.8%)
Male	81 (54.7%)	Smoking hx	61 (41.2%)
Female	67 (45.3%)	Diabetes	32 (21.6%)
Race	CO(AO E0())	Cancer hx	31 (20.9%)
Black Asian	60 (40.5%) 24 (16.2%) 28 (18.9%)	Coronary Artery Disease	29 (19.6%)
Other	25 (16.9%)	Atrial Fibrillation	24 (16.2%)
Declined	11 (7.4%)	Valvular Disease	11 (7.4%)
Ethnicity		Heart Failure	10 (6.8%)
Non-Hispanic Hispanic Declined	107 (72.3%) 25 (16.9%) 16 (10.8%)	Peripheral Artery Disease	10 (6.8%)
Mean BMI	26.9	Most Common	Incidentals
Mean BP	131/77	Aneurysm/Infundik Thyroid Findings (1	oulum (20), .4), Pulmonary
Median NIHSS	1	Findings (11), Aort	ic Findings (4)

CONCLUSIONS

- The implementation of a CTC model numerically improved follow up rates and reduced wait time for patients discharged from our academic (WCMC) and community hospital (LMH).
- Our design ensured accountability for secondary prevention measures.
- This model serves to streamline transitions of care, thus improving access and reducing burden for procuring follow up on GME house staff.
- Our clinic was inclusive of TIA patients, a high-risk population that should be provided the same CTC services.

2022 Patient Experience Achievements

Natalie Aflalo, MPH; Ellen Hawa, MSc.N, RN; Amrita Sarpal, BSN, RN

NewYork-Presbyterian Lower Manhattan Hospital

Background

PX Recognition

From 2021–2022, LMH's HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Summary Star Rating increased from 2.44 (2 stars) to 2.69 (3 stars). LMH achieved this improvement through staff education and engagement, recognition, and innovation.

PX Skills Day – Nov. '22

- The event focused on Creating Connections, Teach-Back, and Service Recovery
- PX team members and Nursing Leaders evaluated staff during simulations and provided real-time feedback

 In summer 2022, LMH's VP Recognition program resumed. Throughout 2022, the PX Lead and VPs rounded on 5C, 6B, and EVS to recognize them for their PX achievements

 In fall 2022, LMH's PX Lead started sending personal e-cards to every team member recognized in a patient experience survey comment. To date, over 160 e-cards have been sent to staff

provided real-time feedback.

- 78 LMH staff participated as volunteers and attendees.
- The post-event evaluation found 85% of respondents (28) "strongly agreed" that the event improved their confidence in communicating with patients.

Unit-Based Simulations

Throughout 2022, the PX Lead and 4C and 5C PCDs organized **PX and PX/Patient Safety simulations for nurses**. Simulations focused on **Creating Connections**, **Courtes**y and **Respect**, **Proactive Rounding** and **Expectation Setting**.

Nursing participants were evaluated during the simulations and provided with real-time feedback.

Embedded Pharmacist on 5C

5C's Quarterly Scores on HCAHPS Q.22, 2022 Q2 – 2023 Q2

Since November 2022, 5C has had a dedicated pharmacist. One of the pharmacist's duties is to provide discharge medication education, focusing on each medication's purpose and possible side effects. From 2022 Q3–2022 Q4, 5C's score on HCAHPS Q.22 (*When I left the hospital, I clearly understood the purpose for taking each of my medications*) increased by 15.28 points, from 36 to 51.28. The unit's 2023 Q1 score was even higher (54.55). And while only about one-fifth of surveys for 2023 Q2 have been received, this quarter's score (75) is currently 40

Hospital-Wide PX Council

LMH's PX Council was re-established in February 2023 with the goal of increasing staff awareness of the importance of patient-centered care and its impact on PX scores. The Council is inclusive of a variety departments.

The Council meets monthly to:

- review HCAHPS scores and identify barriers and solutions
- discuss PX topics, which PX
 Champions then review at team
 huddles using the monthly
 handout provided to them

points higher than the score in 2022 Q2.

Leveraging Technology: 4A Telepharmacy Pilot

In January 2022, IT, PSA, PX, Pharmacy, and Nursing implemented a **Telepharmacy Virtual Visit pilot** program on 4A. Patients being discharged home have a virtual visit with an NYP pharmacist. Via the patient's room TV, the pharmacist provides discharge medication education and addresses patient questions. Results have consistently **been positive,** with patients who participate in the program responding more favorably to HCAHPS questions compared to nonparticipating 4A patients. The program is now the standard on 4A.

HCAHPS Overall and Telepharm HCAHPS scores, 1/28/22-5/13/22

Upskilling Oncology Nurses to Competency with CAR-T Infusion & Management

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BACKGROUND

- 10W administers numerous cellular therapy products, including CAR T-cell.
- In 2021, 191 infusions were administered, 35 of which were CAR Tcells, a 40% increase in CAR T-cell from 2020.
- The transplant team could not treat COVID+ patients who needed treatment for their disease.
 - 10W is a positive pressure unit which does not allow for Enhanced Droplet isolation.
 - Result: Delays in treatment therefore increasing the risk for relapse.
- 10N has beds designated for autologous transplants and can care for COVID+ patients.
- In January 2022, a COVID+ CAR T-cell patient needed emergent treatment.
 - The patient could not be transplanted on 10W, so 10N was selected due to their foundational knowledge of infusions.

PURPOSE

To create a robust educational program to prepare oncology nurses to care for a CAR T-cell patients from January to September 2022.

INTERVENTIONS

- 10W nurses identified 10N as the target for this intervention due to the baseline transplant knowledge
- CAR T-cell education planned, coordinated and executed in collaboration with nursing leadership, nursing education and medicine.
- Multiple educational sessions to reach 100% of staff
- In person in-service at morning huddles
 - Chemotherapy
 - Product administration
 - Patient monitoring
 - Medical emergencies
- Nursing Grand Rounds lecture: Care of the CAR T-cell patient
- Designation of unit RN champion
 - Administration of CAR T-cell product
 - · Education for infusion reactions
- Mandatory Risk Evaluation and Mitigation Strategy (REMS) training required by the FDA

100%	
95%	
90%	
85%	
80%	
75%	
70%	
65%	

NewYork-Presbyterian Department of Nursing

RESULTS

To evaluate knowledge, 10N RNs completed a pre- and post-test at three different time periods on CAR T-cell management and side effects.

To ensure sustainability, 10N RNs were also evaluated on their confidence caring for CAR T-cell patients.

OUTCOMES

- 10 CAR T-cell patients have been transplanted on 10N without complications.
- The HSCT program to administered 35% more CAR T-cell products from 2021.

Expanding bed capacity for transplant supported program growth.

CONCLUSION

- Trained nurses on 10N continue orient newly hired nurses using provided education.
- This program model can be replicated for nurses learning to care for new patient populations in different specialties without incurring any costs by utilizing internal nurse experts as resources.
- Nursing confidence can improve when provided with the right support and opportunity to learn.

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Encouraging Early Kangaroo Care in the Neonatal ICU: A Quality Improvement Project

MAGNET RECOGNIZED TACE AMERICAN NURSES

Tricia Budway MSN, RN, CPNP, CLC | Nusrat Qadir MSN, BS, RN Vivian Lopez DNP, RN, PNP, NNP-BC | Kaitlin Cassidy, BSN, RN, RNC-MNN

Background

• Research has shown that kangaroo care (KC), the practice of skin-toskin holding between a developing infant and caregiver, has been beneficial for bond development, mother's milk production, infant's sleep patterns, growth and development, immune function, thermoregulation, and reduced susceptibility to mortality. Barriers to skin to skin often occur as a result of treatments and equipment in the **Neonatal Intensive Care Unit** (NICU). The facilitation of KC is dependent upon nursing's comfort and confidence levels.

Interventions

During this two-year QI project on integrating KC in the NICU, multiple interventions were implemented and included:

- Development of KC guidelines
- Nursing education on KC
- Parent education on the benefits of KC, optimal holding time, a "Kangaroo-a-thon" event and other related activities supporting KC
- Multidisciplinary engagement of KC from Social Worker, Physical and Occupational Therapy, Respiratory Therapy, and the March of Dimes NICU Family Support Coordinator
- Implementation of Epic EMR documentation of skin-to-skin

Discussion

- This ongoing QI initiative successfully decreased the age at first KC hold without increasing adverse events. Protocol development, data distribution to the multi-disciplinary team, and reinforcement of KC principles were key contributors that led to a culture shift with improved KC timeliness.
- Implementing KC guidelines fostered adherence and commitment from parents and the multidisciplinary team
- Education, discussion, peer-to-peer support, and evaluation increased the comfort and confidence levels

• Creating a culture that supports KC requires time and commitment from the NICU team and parents, with neonatal nurses playing a pivotal role in fostering KC. Formal guidelines and education support nursing in implementing KC particularly, with the most fragile infants.

Purpose

KC has been an established practice within our NICU however, inconsistencies in practice led to the development of this QI project with a focus on improvement strategies that included the implementation of practice guidelines and education to improve time to KC hold.

PICO Question

- P NICU patients
- Education and KC practice guidelines
- **C** Previous KC hold time data
- O Improved time to KC hold

Results

There was a 39% decrease in the age at the first KC session for all infants from 6.9 days to 4.2 days of life. This centerline shift was correlated with KC protocol development, faculty and staff KC presentations, and parent kangaroo-a-thon events.

among nursing in facilitating KC

- Strengths of the study included full engagement from multidisciplinary team members and leadership; and the availability of resources to transition to Epic documentation
- Limitations included challenges in gathering data pre-Epic with manual paper documentation

Next Steps in the QI Process

- Evaluation of the relationship between KC and breast milk feeding during the first month of life
- Offering KC during orientation

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Methods

- This IRB approved Quality Improvement (QI) Initiative utilized the Model for Improvement
- Sample included infants at varying gestational ages in a 60-bed, level IV NICU from January 2021 to December 2022
- Initial data collection included manual paper documentation followed by electronic medical record (EMR) documentation
- Measures included mean age at first KC session for infants with KC data available

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Weill Cornell Medical Center

C - diff - errent results! Piloting an Algorithm

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Background

Studies have shown that C-diff causes great economic burden on our healthcare system. The cost of *C-diff* infections was estimated to cost 5.4 billion dollars a year (Zhang et al., 2018).

In many cases patients are over diagnosed with *C-Diff* due to inappropriate testing criteria. Studies had shown that 15% of hospitalized patients were colonized with *C*-diff and had no symptoms (Tirupathi et al.,

Methods

- Quality Improvement (QI)
- All 8N patients requested to have *C*-diff sample sent
- Pilot began February 6th 2023
- Daily huddles regarding process
- Algorithm was used for every *C*-diff sample request
- Real time decision support given to requesting team
- Data collected via direct communication to PCD/CM

Algorithm : Provider enters order for *C-diff* testing. Patient's RN assesses if an appropriate indication for testing exists:1. >3 watery/unformed stools within past 24 hours without receipt of laxatives, stool softeners, enemas or other explanation for loose stool (e.g., oral contrast, recent addition of tube feeds) And OR 2.

Results

Feb 6th to April 14th, 17 *C-diff* samples requested on 8North. .5 were dc'ed with bedside RN and PCD decision support .2 were dc'ed with bedside RN added decision support .4 were escalated to PCD and did not fit algorithm but were sent because they were <4 inpatient days admitted and thus would not be considered hospital-onset if positive

- .5 were sent by staff because they met criteria
- .1 sent with RN, PCD, and UMD

2020).

Because of highly sensitive results *C-diff* is diagnosed in the colonized rather than truly infected patients. Those patients are not infectious and are then inappropriately treated.

Inappropriate testing can also lead to inappropriate antibiotic use and isolation.

Following algorithms for *C-diff* testing has been shown to lower the number of cases tested. Studies done in four inpatient units had shown that there was a 31% reduction in monthly *C-diff* tests performed. The number of diagnoses was observed to decrease by 58% (Lenz et al., 2020).

Our aim was to encourage the rational use of C-diff testing to diagnose true C.diff infection and reduce inappropriate testing and false positive results via the use of a c-diff diagnostic

16

Colitis/ileus AND elevated WBC count without alternative explanation. Escalation as needed...

C-diff Algorithm

decision support

Discussion

Awareness through daily huddles to review C-diff cases & algorithm with morning and night RNs was beneficial. Results are in line with literature and appropriate *C*-diff testing. Strengths: Utilization of interdisciplinary teams for awareness, real-time education, and staff engagement. Building relationships with front line staff and provider partners. **Limitations:** No GEO localizations on 8N, over 20 different provider teams to be made aware of algorithm. Limited unit nurse leadership on weekends & nights. Variability of float staff and their

Recommendation: To have daily unit huddle discussions in regards to proper *C-diff* stewardship and roll out c-diff algorithm to NYP units.

awareness of pilot study.

algorithm

Multidisciplinary group (CMO, UMD, PCD, IPC, QPS, DON, PCD) developed and piloted an escalation pathway for potentially inappropriate C.diff specimens. The pilot started February 6th. 8North had 10 Cdiff HAIs in 2022

C-diff sample requests dc'ed with decision support

33.33% Reduction in *C-diff* samples sent Feb 6th 23' to April 14th 23' when compared to the same time frame the previous year.

ZERO 8N HAI C-diff cases since start of pilot.

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- NewYork-Presbyterian **Department of Nursing**

Evaluating Maternity Nurses' Perception of Implicit

Bias and its Influence on Maternal Outcomes

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Problem Identification

Background

- •The U.S severe maternal mortality and morbidity (MMM) rates have increased steadily over several years
- Research is revealing that serious health problems derive from structural bias produced by laws, rules, and practices by various levels of society, government, and systems that perpetually marginalized groups of people
- Micro/macro-aggressions related to race, gender, & class oppression has been identified as primary drivers of health inequity, creating stressors that contribute to poor health outcomes •New York State's Birth Equity Improvement Project (NYSBEIP) has identified disparities related to race, gender, health insurance, languages spoken other than English

Methods

Research Question

Among nurses at a New York City Regional Perinatal Center, do nurses perceive that implicit bias has an influence on maternal outcomes?

Methods

Design: Exploratory research design through a quantitative data collection via protected online survey.

Survey included questions pertaining to:

- Demographics
- staff nurses' experience
- care for the birthing person

Eligibility Criteria: staff maternity nurses who work in direct patient care a New York City **Regional Perinatal Center**

Results

The **more experience a nurse** had:

•The less they felt respected in their workplace (p-value = 0.02)

- •the less they felt the team did not take their recommendations/suggestions into consideration (p-value = 0.02)
- •felt that the healthcare team treat birthing people differently based on ethnicity/culture (pvalue = 0.02), type of health insurance (p-value) = 0.005), and language they speak (p-value = 0.02)
- •rated the hospital as "average" (p-value = 0.0004) Although nurses that worked at this facility for more than 20 years rated it as "excellent." (p-value = 0.001)

- •In maternity hospital settings, nurses spend the most time with birthing people and play a vital role in their care and outcomes
- •Understanding the maternity nurses' perceptions of the care delivered can reveal understandings of the current culture and its effects on outcomes to create specific interventions to combat the growing MMM

Current Practice

This study received IRB approval from Weill-**Cornell Med**

Data Analysis

- Frequency tables created crossing demographic question to staff nurses' experience and care of the birthing person survey questions.
- Statistical significance was tested using the Kruskal Wallis Test

Discussion

- Workplace culture and personal experience influence views on patient care and outcomes
- Nurses don't always feel respected in the workplace or have their recommendations /suggestions taken into consideration which can impact care delivered
- Nurses feel that birthing people are treated differently based on socioeconomic status, gender, race, revealing structural bias within this facility
- Nurses do not agree that all birthing people are treated with respect/compassion and do not rate this facility as excellent, revealing inequitable care and feel improvements need to be made

Results

Compared to all the units on the maternity service, **labor and delivery nurses** felt that:

- Providers did not ask for the birthing person's permission before carrying out exams and treatments (p-value < 0.001)
- birthing people felt pressured by the healthcare team into accepting care they did not want or did not understand (p-value = 0.0016)
- •the healthcare team treated birthing people different based on race/skin color (p-value = 0.0012) and language they speak (p-value = 0.0009)
- •neither agree nor disagree that all birthing people are treated with respect and compassion
- •rate the hospital "average" (p-value = 0.0004) Compared to all the units on the maternity services, **postpartum nurses** felt that the healthcare team treats birthing people different based on:
- sexual orientation or gender identity (p-value = 0.009)

Evaluation & Future Research

- Limitations to this study included a small study pool as well as looking at perception data versus outcomes.
- Acknowledging perceived bias can help restore relationships and improve outcomes

- The Dalio Center for Health Justice aims to address these inequities through education, leadership, research, & implementation science
- The Health Equity Alliance for Life (HEAL) is a maternity department specific committee aimed to create an interdisciplinary space to address health inequities specific to their population
- Currently, there is no research or efforts aimed to understand implicit bias among maternity nurses

75 nurses completed surveys (30% of nurses at ACH)

Majority of responding nurses were:

- From the labor and delivery unit
- White
- •30-39 years of age
- •<5 years of nursing experience
- Day shift
- •This is not their first nursing job Nurses agreed that the healthcare teams treat patients different based on:
- Race or skin color
- Ethnicity or culture
- Language they speak

Overall, nurses agreed that all birthing people received "good" care at this facility

- Facilities should promote a diverse workforce of nurses
- Promote interdisciplinary work to include nursing and birthing people in decisionmaking discussions, obtain informed consent prior to all procedures/exams
- Future studies are needed to compare perceptions of other types of maternity service healthcare workers and other specialties

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-NewYork-Presbyterian

Lower Manhattan Hospital

Comfort Care Rounds- Facilitating the Transition to General Inpatient Care Hospice at Lower Manhattan Hospital

Valerie Morales, LMSW, Anna Krakowski, MS, RN-BC, AGPCNP-BC, ACHPN,CHPN Margaret Sullivan, MS, RN-BC, AGPCNP-BC, Robert Rotman, MD

Background

LMH ED serves primarily the Chinatown and Lower East Side, where one third of the population is 65 years or older where many patients have comorbid life-limiting medical problems leading to frequent hospitalizations and are often an end-of life care that need to be provided in inpatient settings because of the symptoms burden.

General Inpatient Care (GIP) is a hospice level of care, defined as shortterm care provided for a patient's pain management or acute or chronic symptom control that cannot be managed in other settings.

Patients accepted to Calvary Hospice Beds Program

Results

In 2022 number of patients accepted to Calvary Hospice Beds program increased to 66 comparing to 17 patients in 2021.

No patients were discharged from the Calvary hospice program once initially enrolled.

➢Out of 66 patients, 20 (33%) patients were referred by ED team and transitioned to Calvary Hospice Beds Program in the ED.

➢ Hospice beds program was introduced by either palliative or primary team and if the patient/ family were interested in the program patient/ family were able to further discuss it with the Calvary hospice liaison.

Patients who are actively dying and need aggressive symptoms management can receive GIP hospice level of care at LMH.

➤The primary aim of this quality improvement project was to identify patients who would benefit from GIP hospice level.

➤The 2nd goal of this project was to decrease adult mortality rate below 0.9.

Methods

This Quality Improvement Project was conducted in the ED, ICU and medicine inpatient units.

- Referral criteria for GIP hospice level of care was provided to serve as a guide for selecting patients.
- Palliative care team (MD/NP/ SW) attended comfort care rounds

2021 2022

Discussion

This Quality Improvement Project describes collaborative efforts to improve timely access to Calvary Hospice Beds Program, to increase awareness and understanding of the program and improve communication of patient/ family needs and wishes.

➢ By an early and timely referral to Calvary Hospice Beds Program we were able to meet the specific criteria by ensuring goals of care were delineated, code status clarified, and patients who met the criteria transitioned to Calvary Hospice Beds Program.

➢Also, by an early and timely referral to Calvary Hospice Beds Program we were able to contribute to decrease the LMH mortality rate (0.73 in 2022) and 0.67 in 2023.

with Calvary Hospice Team (RN/SW) every Tuesday and Thursday.

- Data was collected quarterly to evaluate the number of patients referred and accepted to Calvary GIP hospice level of care.
- ➤The first Comfort Care Round took place on October 28th, 2021.

Intervention period was October 2021.

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-NewYork-Presbyterian Lower Manhattan Hospital

Asking the Why in Telemetry

Contact: Katie Nehring (kan9078@nyp.org)

Katherine Nehring, BSN, RN, Joanna Villamayor, MA, RN, CCRN, NEA-BC, MEDSURG-BC, Branden Lam, MSN, RN, PCCN, Fernando Pintado, Telemetry Technician

Background

• The American Heart Association (AHA) released the initial practice standard in 2004 to provide recommendations for the use of electrocardiographic monitoring. (Drew et al., 2004). Since then, there has been overuse and underuse of this technology which triggered an update of the practice standards (AHA, 2017).

PICOT

PICOT: For adult medical-surgical patients, do EHR optimization and discussion of telemetry indications during interdisciplinary rounds (IDRs) decrease the use of telemetry by 10 percent over the period of three months?

Methods

Sample Population:

All admitted patients on telemetry monitor at LMH 4C-Telemetry Unit

Results

• 15% to 22% of active telemetry orders were discontinued during IDR as a direct result of the interdisciplinary discussion of telemetry indication.

Telemetry Orders Discontinued During IDR

25.%

- Only 24% of telemetry days were deemed appropriate. Device alarms are one of the most reported sleep-disturbing factors for admitted patients (Wesselius, 2018).
- A review of telemetry use can lead to halfmillion annual cost savings per 250 patients (Chong-Yik et al., 2018).
- The NewYork-Presbyterian Hospital-Lower Manhattan has the capability to monitor less than 50% of all the medical-surgical inpatient beds. With the complex patient population it serves, the practice site shares the challenge of optimizing the use of telemetry monitors.
- The electronic Health Record (EHR) system has incorporated a clinical decision support system when a provider places an order for telemetry. However, this feature is only for the initial order. There was no daily review of telemetry monitoring necessity.
- Interdisciplinary rounds (IDRs) occur daily to

Data Collection Period:

January 2022 to May 2022. Before the intervention, telemetry use was not part of the IDR discussion, thus the zero

pre-intervention data point.

Intervention

• An Epic optimization request was submitted and was subsequently approved to include both telemetry and pulse oximetry icons (same resources) on the Unit Manager and Patient Lists to get an accurate number of patients on telemetry. Data were collected daily before each IDR.

gn Out 🙎 Pre-assign Print out daily 30	Patients	Management 🛛 😆		
Registered Nurse Status Status A Bed				
	\$ •	420-01		
	\$ •	417-01		
	v •	418-02		

Nov-21 Dec-21 Jan-22 Feb-22 Mar-22 Apr-22 May-22

Discussion

- EHR can be optimized to get accurate data in real-time
- Like HAI prevention, nurses' involvement in goals of care, including evaluating indications of monitoring devices, can improve care outcomes and promote efficient use of resources
- Appropriate use of telemetry can improve bed availability in a setting where resources are limited.
- Staff provided anecdotal feedback on better team collaboration, more nurse involvement, and enhanced patient advocacy.
- The charge nurses have a better perspective of current and projected

improve communication among the care team, patients, and family members (Agency) for Healthcare Research and Quality, 2012). • An outline for IDR, in a form of a checklist, includes a brief history of admission, goals of care, and discharge disposition, among others but nothing pertaining to telemetry use.

• The EHR was not optimized for the patient flow team (bed management, nursing leadership, and charge nurses) to view in real-time the number of patients on telemetry monitoring. Manual counting and multiple calls needed to be done to get this information.

• The IDR starts at 10 am, and telemetry indication was discussed per patient. A standard script of "why is the patient on telemetry or what is the indication for *telemetry*" was used instead of a "yes or no" question. A checklist in the form of a poster was made available at the IDR area to facilitate a streamlined discussion. The provider discontinued the order if monitoring was not indicated. The total number of discontinued orders was collected and recorded at 3 pm to allow providers to update the EHR. This was done in collaboration with the telemetry technicians.

bed availability which facilitates smoother patient flow and bed management.

• The telemetry technicians shared satisfaction as they can now focus on patients who need it and would benefit from continuous monitoring.

 While the discussion is welcomed during IDRs, providers still vary in practices. It is recommended that AHA guidelines be integrated into the EHR.

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Assessing the Language Proficiency of Our Bilingual Perioperative Staff

NewYork-Presbyterian Weill Cornell Medical Center

Maria del Mar Rodriguez MSHI CNS BSN CNOR, Sharon Llerena DNP RN-BC CCTN CPAN

Background

Clear communication between healthcare providers and non-English speaking patients and their families is fundamental to ensure a safe and equitable patient care.

In many instances patients with limited English proficiency (LEP) request inperson language assistance from unqualified bilingual staff, leading to communication errors and poor clinical outcomes. Assessing the linguistic competence of our bilingual staff in the healthcare context using our institution's Linguistic Clinical Communicator (LCC) assessment tool is advantageous to proven misunderstandings when communicating health information with our LEP patient population.

Statement of Successful Practice

- 90% (n=20) of bilingual staff are now approved LCCs.
- Increased peer-peer support.
- LCCs speak a total of six languages and readily available to provide in-person interpretive services.
- Leadership confidence in the ability of bilingual staff to
- accurately communicate with patients about their care.
- Reported increased staff and providers' satisfaction with LCC

Discussion

- With this intervention our perioperative LCCs display commitment to our Respect Credo and uphold the importance of diversity, inclusion, and belonging.
- 28.9% of NYC residents are Hispanic/Latino, representing the largest ethnic minority population.
- 50% of our LCCs are proficient in communicating healthcare information in Spanish, enabling in-person patientprovider interaction in the patient's

Methods

Information Sharing (July 2022)	Conducted huddles emphasizing expectations and benefits of becoming an approved LCC on patient- provider communication, interactions and clinical outcomes.
Survey (N=22) (July 2022)	A staff survey enabled us to identify bilingual perioperative staff with language proficiency to communicate accurate clinical information to LEP patients in their preferred language.
Language Assessment	 (N=22) staff undertook a 40 minutes language

availability and ease of use.

Language Diversity of Perioperative LCCs (n=20)

preferred language.

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 United States Census Bureau (2022). Quick facts New York City, New York. Available at: https://www.census.gov/quickfacts/newyorkcit ynewyork Understanding Risk Factors for the Usability of a Genetic Cancer Risk Assessment Tool Among Gynecologic Oncology Patients: A Quality Improvement Initiative

Luiza Perez¹, Emily M. Webster¹, Leslie Bull¹, M. Danyal Ahsan¹, Laura Keenahan¹, Sarah R. Levi¹, Evelyn Cantillo¹, Eloise ChapmanDavis¹, Kevin Holcomb¹, Ravi N. Sharaf², Melissa K. Frey¹

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Background: The Ambry Genetics Comprehensive, Assessment, Risk, and Education (CARE) Program, an online tool to assess genetic testing eligibility and lifetime risk for breast cancer, is available to gynecologic oncology providers at Weill Cornell Medicine to supplement genetic cancer risk assessment. Genetic cancer risk assessment tools, such as CARE, have been shown to improve rates of identifying atrisk patients.

Aims: We aimed to implement the use of CARE among new patients in a gynecologic oncology clinic. Additionally, we sought to understand demographic patterns among CARE completers and non-completers, as well as identify associations of demographics and health literacy on tool usability.

Methods: Between November 2022 and March 2023, new patients in a gynecologic oncology clinic were prompted by text message to complete CARE prior to their appointment. Those using CARE then completed the System Usability Scale, a validated 10-item questionnaire for the assessment of perceived usability, as well as the BRIEF Health Literacy Screening Tool, a 4-item validated tool for measuring health literacy. Comparison of CARE completers vs non-completers was conducted using Wilcoxon rank sum test and chi-square test, as appropriate. Relationship between usability and patient demographics, including health literacy, was evaluated using Wilcoxon rank sum test and Spearman's rank correlation coefficient, as appropriate. Statistical analysis was performed using Stata, version 15.1 (StataCorp LLC, College Station, Texas).

Results: Ninety-three patients presented for a new patient gynecologic oncology appointment and were prompted to complete CARE. The median patient age was 50 years (interquartile range [IQR], 39-66). The patients identified as Non-Hispanic White (61, 66%), Asian (9, 10%), Non-Hispanic Black (7, 8%), Hispanic (3, 3%), other (8, 9%), or declined identification 5 (5%). Sixty-seven patients (72%) completed CARE. There was no difference in age between completers and non-completers (median age 50 vs 52 years, p= 0.1829) and no difference in rate of completion among those identifying as non-Hispanic White vs not (70% vs 75%, p=0.645). Among CARE users, 61 (91%) patients completed the usability scale, and 64 (96%) patients completed the health literacy screen. The average system usability score was 85 (IQR, 60-97.5; Figure 1. System Usability Scale scores), which corresponds to a letter grade of Powered by Qualtrics A Conclusions: Should state the implications of the findings for clinical practice, research, education, or policy. Future steps or lessons learned should be included if applicable. Table/Figure (optional) Table/Figure (optional) A+ (corresponding IQR, D-A+). Older age was found to be associated with lower usability score (Spearman's rho -0.2830, p=0.0224). Usability score did not differ among those who identified as nonHispanic White vs not (median usability score 88 vs 79, p=0.3021). The median health literacy score was 18 (IQR, 16-20), which corresponds to adequate health literacy (corresponding IQR, marginal- adequate). A positive correlation was noted between system usability and health literacy (Spearman's rho 0.3575, p=0.0037).

Conclusion: No patterns in uptake based on age, race, and ethnicity were identified for the CARE genetic cancer risk assessment tool. However, those with older age and lower health literacy were noted to rate CARE with lower usability scores. Efforts are needed to ensure the accuracy of information collected through these supplementary tools, with special attention given to the vulnerable populations identified in this project who may have more difficulty with tool navigation.

Understanding Risk Factors for the Usability of a Genetic Cancer Risk Assessment Tool among Gynecologic Oncology Patients

A Quality Improvement Initiative

Luiza Perez, Emily M. Webster, MD, Leslie Bull, Muhammad Danyal Ahsan, Laura Keenahan, MD, Sara R. Levi, Shannon M. Kieran, Evelyn Cantillo, MD, MPH, Eloise Chapman-Davis, MD, Kevin Holcomb, MD, Ravi N. Sharaf, MD, MS, Melissa K. Frey, MD | May 24, 2023

Background	Methods
 Population-based screening for hereditary cancer syndromes is a cost-effective and evidence-based national health priority 	 Initiative conducted between November 2022 and March 2023 New patients in a gynecologic oncology clinic prompted by tex message to complete CARE prior to appointment (Figure 1)
 Individuals with a hereditary cancer syndrome (e. hereditary breast and ovarian cancer and Lynch syndrome) can undergo cancer screening and prevention that can reduce cancer-associated mod 	 9., Patients who met criteria for genetic testing received genetic counseling at the time of the appointment If interested in genetic testing, patients offered same-day testing
and mortality	 Post-CARE survey administered including System Usability
 Digital cancer risk assessment tools have been sl improve rates of identifying at-risk patients 	hown to Scale and BRIEF Health Literacy Screening Tool Statistical Analysis
The Ambry Genetics Comprehensive, Assessmer and Education (CARE) Program is an online tool assess genetic testing eligibility and lifetime risk f breast cancer	 ht, Risk, Comparison of CARE completers vs non-completers was conducted with Wilcoxon rank sum test and chi-square test Relationship between usability and patient demographics evaluated with Wilcoxon rank sum test and Spearman's rank
 Available to gynecologic oncology providers at W Cornell Medicine 	ell correlation coefficient

Aims

- 1) Implement the use of CARE among new patients in a gynecologic oncology clinic
- 2) Understand demographic patterns among CARE completers and non-completers
- 3) Identify associations of demographics and health literacy on tool usability

and testing workflow schema.

Results

Implementation

- 93 new patients prompted to complete CARE (Table 1)
- 67 (72%) completed CARE

CARE Completers vs non-completers

 No difference in age (median age 50 vs 52 years, p=0.18) or rate of self-identification as non-Hispanic White (70% vs 75%, p=0.65)

CARE Usability

- Median System Usability Scale score 85 (IQR 60-97.5) (Figure 2) corresponding to letter grade of A+ (IQR D-A+)
- Higher usability scores associated with younger age (ρ_s =0.2830, p=0.0224) and higher health literacy (ρ_s =0.3575, p=0.0037)
- Usability score did not differ among those who identified as

Figure 2. System Usability Scale Score Histogram

non-Hispanic White vs not (88 vs 79, p=0.30)

Table 1. Patient characteris	tics. IQR, interquartile range.
-------------------------------------	---------------------------------

Median age in years (IQR), n=93	50 (36-66)
Race, n (%)	
Non-Hispanic White	61 (66)
Non-Hispanic Black	7 (8)
Asian	9 (10)
Hispanic	3 (3)
Other	8 (9)
Declined identification	5 (5)
Completed CARE? n (%)	
Yes	67 (72)
No	26 (28)
Median BRIEF Health Literacy Screen Score (IQR), n=64	18 (16-20)
BRIEF Health Literacy Screen Category, n (%)	
Inadequate	6 (9)
Marginal	14 (22)
Adequate	44 (69)

Conclusions & Next Steps

- Use of a digital cancer risk assessment tool was successfully incorporated into a gynecologic oncology clinic
- Age, race, and ethnicity did not affect rate of CARE completion
- Older age and lower health literacy associated with lower CARE usability ratings
- Additional resources may be required to facilitate accurate tool completion in vulnerable populations
- The impact of CARE on identification of individuals at risk for hereditary cancers is being evaluated in an ongoing trial: Evaluation of a Chatbot to Maximize Hereditary Cancer Genetic Risk Assessment in an Underserved Gynecology Population (NCT05562778)

Project Name: A Quality Improvement Initiative to Develop And Implement A Genetic Cancer Risk Assessment Tool For Use In A Diverse, Urban Gynecology Clinic

Authors:

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Statement of the Problem: Approximately 1% of the US population has a hereditary cancer syndrome. Screening is recommended to occur at the primary care level; however, most patients with hereditary cancer syndromes have not been identified and thus are unable to benefit from cancer risk-reducing strategies. Under-recognition due to lack of genetic cancer risk assessment is more pronounced in racial and ethnic minority populations and among those with public insurances. Electronic family history tools to aid detection of high-risk patients are costly to embed in clinical settings and inconvenient to use, requiring an average of 30 minutes to complete with low

Objective/Aim of the Study: We aimed to overcome barriers to genetic cancer risk assessment by creating and implementing a low cost, efficient screening tool in the Helmsley Medical Tower Women's Health gynecology clinic. Specifically, we wanted to design a tool with a completion rate of more than 50% that required less than 5 minutes on average to complete.

Project Design/Methods: We developed and piloted the Cancer Assessment Tool for Collecting History (CATCH), which is a decision tree algorithm designed to identify patients eligible for genetic testing based on established national guidelines using personal and family cancer history (Figure 1. Fishbone diagram addressing genetic cancer risk assessment barriers and the role of CATCH tool. CFH; cancer family history). English-speaking patients were approached in the waiting room prior to their appointment and provided the option of completing an online CGRA tool accessed via QR code on a patient's personal smartphone. Patients identified to be eligible for genetic testing were offered mainstream genetic counseling and testing as part of their gynecology visit on the same day. Our primary outcomes were tool uptake rate and time. Our secondary outcome was assessment of previously unmet need for genetic services. Patients without prior documentation of genetic counseling or testing who had seen a primary care provider within the past 12 months were considered to have had an unmet need for genetic services.

Results: From July to December 2022, CATCH was offered to 203 patients and completed by 142 (70.0%) (Table 1. Participant characteristics). Among users, 62 (43.7%) self-identified as Hispanic, 40 (28.2%) non-Hispanic Black, 25 (17.6%) non-Hispanic White, 7 (4.9%) Asian, 2 (1.4%) Native American or Alaskan, and 6 (4.2%) unspecified or other. Regarding primary insurance, 108 (76.1%) had Medicaid, 12 (8.5%) Medicare, 18 (12.7%) New York Statefunded insurance, 3 (2.1%) commercial insurance, and 1 (0.7%) hospital-based charity. Completion of CATCH required a median of 2 minutes (interquartile range 1-4 minutes). Thirty-eight (26.8%) patients were identified to meet eligibility criteria for genetic testing for hereditary cancer syndromes. Twenty (52.6%) elected to complete genetic testing at the time of appointment, 10 (26.3%) had previously received testing, and 8 (21.1%) deferred testing. Among the 28 patients identified as being high-risk for hereditary cancer without prior testing, 22 had been seen by a primary care provider in the prior 12 months and 20 (90.1%) had no documentation of a discussion of genetic cancer risk in the electronic medical record.

Conclusions: CATCH is a low-cost, genetic cancer risk assessment tool that took 2 minutes to complete with a high uptake rate among a historically underserved population. Most patients identified to be eligible for genetic testing were interested in testing and had no prior documentation of risk assessment or counseling, demonstrating an unmet need for genetic services within the population being addressed with implementation of CATCH. This tool holds promise as an item that could be incorporated into routine workflow to bring standard of care risk assessment to our patients.

Figure 1. Fishbone diagram addressing genetic cancer risk assessment barriers and the role of CATCH tool. CFH; cancer family history.

Table 1. Participant characteristics.

Participant characteristic	Median	IQR
Age in years	39	31-49
	n	%
Sex		
Female	141	99.3
Non-binary	1	0.7
Race and Ethnicity		
Hispanic	62	43.7
Non-Hispanic Black	40	28.2
Non-Hispanic White	25	17.6
Asian	7	4.9
Native American or Alaskan	2	1.4
Other	5	3.5
Decline to answer	1	0.7
Primary insurance		
Medicaid/managed Medicaid	108	76.1
Medicare/managed Medicare	12	8.5
Commercial insurance	3	2.1

Other NY government-funded insurance	18	12.7
Hospital-based charity care	1	0.7
Visit type		
New	30	21.1
Follow-up	112	78.9
Visit reason		
Follow-up for acute issue	11	7.7
Follow-up for chronic issue	50	35.2
Preventative/routine care	73	51.4
Procedure	8	5.6

A quality improvement initiative to develop and implement a genetic cancer risk assessment tool for use in a diverse, urban gynecology clinic

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BACKGROUND

- ~1% of the population has a cancer-predisposing pathogenic variant, but >80% have not been identified
- Recognition of hereditary cancer syndromes allows for risk-reducing measures that reduce cancer morbidity and mortality
- Screening is cost-effective and recommended at the primary care level
- Under-recognition due to lack of genetic cancer risk assessment is more pronounced in racial and ethnic minority populations and among those with public insurances
- Existing electronic family history tools to aid detection of high-risk patients are costly to embed in clinical settings and can be inconvenient, requiring an average of 30 minutes with low completion rates

METHODS

Cancer Assessment Tool for Collecting History (CATCH) Development

 Decision tree algorithm designed to identify patients eligible for genetic testing based on established national guidelines using personal and family cancer history

Implementation

- English-speaking gynecology patients were approached in the waiting room prior to appointment
- Offered option of completing CATCH, accessed via QR code on personal smartphone.
- Same-day mainstream genetic counseling and testing offered to patients identified as eligible for cancer genetic testing

Outcomes

- Primary: CATCH completion rate and time
- Secondary: Assessment of previously unmet need for genetic services

Patient Level

AIM

- To overcome barriers to genetic cancer risk assessment by creating and implementing a low cost, efficient screening tool in the Helmsley Medical Tower Women's Health gynecology clinic
- Specifically, to design a tool with a completion rate of more than 50% requiring less than 5 minutes to complete

RESULTS

- From July to December 2022, CATCH was offered to 203 patients
- **Completion rate**: 70% (completed by 142 patients)
- **Completion time**: median of 2 minutes (interquartile range 1-4 minutes)
- 38 (27%) patients were identified to be high-risk for harboring cancer-predisposing pathogenic variant, 28 of whom had never been genetically tested
- Among the 28 patients identified as being high-risk for hereditary cancer without prior tection.

Table 1. Patient characteristics. IQR;interquartile range.

	Median	IQR
Age in years	39	31-49
	n	%
Sex		
Female	141	99.3
Non-binary	1	0.7
Race and Ethnicity		
Hispanic	62	43.7
Non-Hispanic Black	40	28.2
Non-Hispanic White	25	17.6
Asian	7	4.9
Native American or Alaskan	2	1.4
Other	5	3.5
Decline to answer	1	0.7
Primary insurance		
Medicaid	108	76.1
Medicare	12	8.5
Commercial insurance	3	2.1
Other NY government-		
funded insurance	18	12.7
Hospital-based charity care	1	0.7

prior testing:

- 20 (71%) elected to complete same-day genetic testing at the time of appointment
- 8 (29%) deferred same-day testing
- Assessment of unmet need for genetic services
- Among the high-risk patients without prior testing, 22 had been seen by a primary care provider in the prior 12 months, and 20 (90%) had no documentation of a discussion of genetic cancer risk in the electronic medical record

CONCLUSIONS

- CATCH is a low-cost, genetic cancer risk assessment tool that took 2 minutes to complete with a high uptake rate among an underserved population
- Most patients identified to be eligible for genetic testing had no prior counseling and were interested in same-day testing
- Similar tools could be incorporated into routine workflow to bring genetic cancer risk assessment to our patients
- The use of a risk assessment tool for genetic cancer risk assessment in our Women's Clinic is being studied in an ongoing randomized, controlled trial (NCT05562778)

Title: Implementation of a Collaborative Care Model for Perinatal Mood and Anxiety Disorders **Authors**: Sarah J Weingarten, MD, Emily Tutino, BA, Semra Etyemez, MD, MPH Lauren M Osborne, MD

Departments: Obstetrics and Gynecology and Psychiatry

Statement of the Problem: Perinatal mood and anxiety disorders (PMADs), those present during pregnancy and up to one year postpartum, are the most common complication of childbirth, affecting one in five to seven women.¹⁻³ Women are underdiagnosed and undertreated due to multiple barriers. Usually, obstetricians screen once during pregnancy and postpartum, followed by treatment or mental health referrals for affected women.⁴ However, they often report inadequate training and limited access to referrals.⁵ One proposed intervention is a collaborative care (CC) model that integrates mental health providers into the prenatal setting.

Objectives: Determine the feasibility of establishing a CC program, the Perinatal Wellness Program (PWP), for PMADs and its effect on maternal psychiatric and obstetrical outcomes. Assess patient satisfaction, patient-centered and health services utilization outcomes, and provider education.

Project Design: All patients screened at initial prenatal visit, 28 weeks' gestation, and 6 weeks postpartum with Edinburgh Postnatal Depression Scale (EPDS). Those who score \geq 9 (mild depression) are placed in a safety in-basket for review by clinical team and obstetrician (OB). The OB explains the program to the patient, consents and refers. Initial evaluation is performed by a social worker (SW) (behavioral care manager); psychiatrist conducts chart review and cases discussed in weekly meeting with OB, SW, nursing, psychiatrist, and psychologist. The team determines the treatment plan: short-term psychotherapy, medication management by OB, one-time medication consultation, or referral to psychiatry for long-term management. Patients are monitored for improvement of symptoms and other outcomes, including satisfaction; providers are assessed for comfort and knowledge via a survey. Outcomes compared to historical controls and to clinics that have not initiated the PWP.

Results: From 1/23/23 to 5/19/23, 315 patients screened positive (≥ 9 on the EPDS). Of those, 89 patients are enrolled in the PWP, 33 were deemed ineligible after initial review (low burden of symptoms), 3 established care with other WCM providers, 8 are awaiting appointments, 90 are awaiting consent and referral, and 92 have declined services. Reasons for declining included living out of state, cost concerns, not wanting to participate in research, already established psychiatric care, asymptomatic, or not interested. Average EPDS for those enrolled is 15.0±4.5. Average time from referral to enrollment is 13.6 days. 20 providers took the pre-PWP survey. Only 10% felt "extremely comfortable" identifying PMADs. Bipolar disorder and personality disorders were most common other identified disorders, and only 5% felt "moderately" or "extremely" comfortable identifying these. 80% feel they don't have sufficient training to treat PMADs, but 75% "agree" or "strongly agree" that this falls within responsibilities of OBs. 100% feel dissatisfied with referral resources.

Conclusions: The current resources for PMADs are felt to be inadequate and providers do not feel adequately trained to treat PMADs on their own. OBs feel the PWP is acceptable and needed; time for referral to enrollment is acceptable, but there are delays in consent and referral.

Resources:

- Ko JY, Rockhill KM, Tong VT, Morrow B, Farr SL. Trends in postpartum depressive symptoms—27 states, 2004, 2008, and 2012. MMWR Morb Mortal Wkly Rep 2017; 66(6):153– 158.doi:10.15585/mmwr.mm6606a1
- 2. Wisner KL, Sit DK, McShea MC, et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. JAMA psychiatry 2013;70:490-8.
- 3. Gaynes BN, Gavin N, Meltzer-Brody S, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evidence report/technology assessment 2005:1-8.
- Smith MV, Shao L, Howell H, Wang H, Poschman K, Yonkers KA. Success of mental health referral among pregnant and postpartum women with psychiatric distress. General hospital psychiatry 2009;31:155-62.
- 5. Byatt N, Levin LL, Ziedonis D, Moore Simas TA, Allison J. Enhancing Participation in Depression Care in Outpatient Perinatal Care Settings: A Systematic Review. Obstetrics and gynecology 2015;126:1048-58.

Implementation of a Collaborative Care Model for Perinatal Mood and Anxiety Disorders

Sarah J Weingarten, MD, Emily Tutino, BA, Semra Etyemez, MD, MPH, Lauren M Osborne, MD

2023 Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

May 24th, 2023

Statement of the Problem:

- Perinatal mood and anxiety disorders (PMADs), those present during pregnancy and up to one year postpartum, are the most common complication of childbirth, affecting one in five to seven women.¹⁻³
- Women are underdiagnosed and undertreated due to multiple barriers.
- Usually, obstetricians screen once during pregnancy and postpartum, followed by treatment or mental health referrals for affected women.⁴
- However, they often report inadequate training and limited access to referrals.⁵
- One proposed intervention is a collaborative care (CC) model that integrates mental health providers into the prenatal setting.

Objectives:

- Determine the feasibility of establishing a CC program, the Perinatal Wellness Program (PWP), for PMADs and its effect on maternal psychiatric and obstetrical outcomes.
- Assess patient satisfaction, patient-centered and health services utilization outcomes, and provider education.

Design:

- Patients screened at initial prenatal visit, 28 weeks' gestation, and 6 weeks postpartum with the Edinburgh Postnatal Depression Scale (EPDS).
- Score ≥9 (mild depression) placed in a safety in-basket for review by clinical team and obstetrician (OB).
- OB explains program to the patient, consents and refers. Initial evaluation performed by a social worker (SW) (behavioral care manager); psychiatrist conducts chart review and cases discussed in weekly meeting with OB, SW, nursing, psychiatrist, and psychologist.
- Team determines the treatment plan: short-term psychotherapy, medication management by OB, one-time medication consultation, or referral to psychiatry for long-term management.
- Patients monitored for improvement of symptoms and other outcomes, including satisfaction; providers are assessed for comfort and knowledge via a survey.
- Outcomes compared to historical controls and to clinics that have not initiated the PWP.

Results:

89 patients are enrolled in the PWP (with average EPDS 15.0 ± 4.5), 8 are awaiting scheduling, 92 have declined, and 90 are awaiting consent and referral.

• Average time from referral to enrollment: 13.6 days.

- On pre-implementation survey, only 10% of providers felt "extremely comfortable" identifying PMADs.
- Only 5% felt either "moderately" or "extremely" comfortable identifying bipolar disorder and personality disorders.
- 80% of providers feel they do not have sufficient training to treat PMADs, but 75% "agree" or "strongly agree" that this falls within responsibilities of OBs.
- 100% feel dissatisfied with referral resources for mental health.

Conclusions/Lessons Learned:

Slightly comfortable Neither comfortable Neither comfortable Slightly uncomfortable Extremely uncomfortable

The current resources for PMADs in our prenatal clinics are felt to be inadequate and providers do not feel adequately trained to treat PMADs on their own. OBs feel the PWP is acceptable and needed; time for referral to enrollment is acceptable; but there are delays in consent and referral.

Next Steps:

- Continue to facilitate screening and improve enrollment.
- Obtain outcome data for completed pregnancies.
- Expand PWP to all prenatal clinics.

Acknowledgments: Funding provided by Weill Cornell Medicine and New-York Presbyterian Hospital

References:

- 1. Ko JY, Rockhill KM, Tong VT, Morrow B, Farr SL. Trends in postpartum depressive symptoms—27 states, 2004, 2008, and 2012. MMWR Morb Mortal Wkly Rep 2017; 66(6):153–158.doi:10.15585/mmwr.mm6606a1
- 2. Wisner KL, Sit DK, McShea MC, et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. JAMA psychiatry 2013;70:490-8.
- 3. Gaynes BN, Gavin N, Meltzer-Brody S, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evidence report/technology assessment 2005:1-8.
- 4. Smith MV, Shao L, Howell H, Wang H, Poschman K, Yonkers KA. Success of mental health referral among pregnant and postpartum women with psychiatric distress. General hospital psychiatry 2009;31:155-62.
- 5. Byatt N, Levin LL, Ziedonis D, Moore Simas TA, Allison J. Enhancing Participation in Depression Care in Outpatient Perinatal Care Settings: A Systematic Review. Obstetrics and gynecology 2015;126:1048-58.

Use of Diagnostic Stewardship to Reduce InAppropriate Microbiology Sendout Tests: LMH Pilot Study

Stacia Semple M.D., Alexis Kim MSc, Daniel Alvarado MLS (ASCP)^{CM} SBB^{CM},CQA(ASQ), Johora Choudhury, John Nguyen, Jacob H. Rand M.D., Lars Westblade Ph.D, Rebecca Marrero Rolon MD, Harjot K. Singh M.D., ScM., FIDSA

Background:

Inappropriate laboratory testing results in delayed diagnosis and unnecessary treatment. Anecdotal clinical evidence suggested inappropriate testing at NYP/LMH, where there is no diagnostic stewardship of microbiology send outs. We implemented a QI pilot project to improve the appropriateness of send out testing for microbiology/infectious disease, with a goal to reduce the percentage of inappropriate microbiology send out tests at NYP/LMH by 10% by December 2022 compared to baseline (2019-2021).

Methods: Using QI study design and a collaborative study team of Laboratory and ID specialists, we established a baseline of send out data (ARUP specimen transfer list) to compare pre and post monthly counts after QI interventions. Evidence-based definitions of appropriateness were used to determine appropriateness and serial, overlapping PDSA cycles were used including education, updating order sets, modification of test menus, and optimization of DOM ordering manual.

Results: With iterative PDSA cycles, we exceeded our goal of 10% reduction in inappropriate sendouts (Table 1). The most successful interventions included education of accessioners and updated test menus, as well as individual provider feedback.

Conclusion: We identified several opportunities to improve microbiology test ordering through order set changes, provider guidelines, test menu optimization and education, clarifying test names, involving stakeholders from several departments, including obstetrics, pediatrics, medicine, and laboratory services. Through iterative PDSA cycles, we achieved an overall 25% reduction in inappropriate microbiology sendouts. Additional opportunities for diagnostic stewardship were identified, warranted, and will be pursued to further reduce other inappropriate microbiology send out tests.

Table in tambér el mappropriate interebieregy condette by year and teet typer				
Test type	Pre- intervention (2020/2021)	Study period 2022	% change	
Pathogen detection and susceptibility (Gram Negative ID, Nocardia culture)	65.5	25	62%	
Internally available tests (RPP, TPA, Cdiff PCR)	16.5	12	27%	
Qualitative PCRs/Viral cultures (EBV, CMV, VZV culture)	233	213	9% 🦊	
Genotypic and Phenotypic testing (HIV, HCV resistance)	88.5	52	41%	
Total (72 unique tests)	404	302	25%	

Table 1. Number of inappropriate microbiology sendouts by year and test type.

Figure 1 is a run chart of monthly 2022 sendouts (average for 2020/2021=34)

Background:

- of antimicrobials (Zhi 2013)
- and reporting diagnostic tests to improve the treatment of infections and other conditions (Morgan 2017)
- Inappropriate testing can result in longer length of stay, time to optimal treatment, cure rates

Methods:

- Quality improvement study during 2022 using PDSA cycles
- ARUP, our primary commercial lab, provided monthly data for 2022 on microbiology sendouts
- Based on patterns from 2020-2021, we tabulated and tracked tests that were 2008)
- We combined data from 2020/2021 as our pre-intervention baseline

Aim:

• The aim of this project is to reduce the inappropriate Microbiology sendout tests at LMH by 10% during the study period 1/1/2022-12/31/2022 compared to baseline (2020/2021).

Interventions:

#1 PDSA cycle: Individual provider/test level approach (Jan-Mar 2023) • Daily audit to cancel/reroute/change tests in real time • Provider education for each inappropriate test order (organism identification/susceptibility, qualitative (QLT) versus quantitative (QNT), culture versus serology, routing for internally available tests)

- Accessioner education
- #2 PDSA cycle: RCA/Guidelines/order sets approach (Jan-June 2023)
- Obstetrics fetal demise order set (HSV blood PCR)
- Pediatrics order for infants of small gestational age, failed hearing tests (CMV qualitative test)
- Dept Of Medicine Physician Assistant manual on diagnostic stewardship (ID section updated with appropriate tests)
- #3 PDSA cycle: Monthly audit of ARUP sendouts (Jan-Dec 2023)
 - Review frequencies, costs, and inappropriateness to look for additional patterns and opportunities for intervention (HCV)

Outcomes:

• Primary endpoint was number of inappropriate microbiology sendouts, categorized into pathogen detection (organism ID), routing errors, wrong test selection (culture instead of PCR), unnecessary tests (Genotypes)

Use of Diagnostic Stewardship to Reduce InAppropriate Microbiology Sendout tests: LMH pilot study

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Inappropriate laboratory testing can lead to both delayed diagnosis and overuse

Diagnostic Stewardship (DSP) is modifying the process of ordering, performing,

inappropriate based on IDSA Microbiology guidelines of appropriateness. (Miller

- Lab and informatics partnership was critical in ensuring test menus were available and up to date.
- With iterative PDSA cycles including provider education, order set changes, and test menu changes, we exceeded our goal of 10% reduction in inappropriate sendouts.
- Balancing measure: No accidental test cancellations occurred
- Limitations: Technology interventions were delayed which limited impact on availability of quantitative tests. While we were able to update some order sets, adding some quantitative tests went live near end of project (CMV 12/2022)

Conclusion:

- Through iterative PDSA cycles, we exceeded our goal to achieve a 25% reduction in inappropriate microbiology sendouts.
- Application of diagnostic stewardship improved appropriate testing through the use of test menu optimization, electronic decision support, and lab/clinician education.
- This pilot study can be used to further identify inappropriate tests to improve patient care.

y year and test type.				
- ntion 021)	Study period 2022	% change		
5	25	62%		
5	12	27%		
3	213	9%		
5	52	41%		
ŀ	302	25%		

• Figure 1 is a run chart of monthly 2022 sendouts (average for 2020/2021=34)

 With iterative PDSA cycles including provider education, order set changes, and test menu changes, we exceeded our goal of 10% reduction in inappropriate sendouts (Table 1). While real time cancellations were not feasible because of workflow, individual education of providers likely resulted in more appropriate future test choices.

Authors:

Kelly Banks, MD, PHD, Julie Davila, MD, Stephenie Trimboli, MD, Beemnet Neway, MD, Joanna Lee, MD, Alim Esemenli, MD, Matthew Tam, MD, Bing Lin, MD, Emily Scharf, DO, Radha Sathanayagam, MD, Samantha Bruno, MD, Diane Lee, PsyD, Erika Abramson, MD, S. Nena Osorio, MD, Nancy Lee, MD

Title:

Resident led quality improvement project incorporating a clinical psychologist into a pediatric primary care clinic to improve postpartum depression screening and referral rates

Background:

Postpartum depression (PPD) is the most common obstetric complication in the US, affecting 10-16% of mothers (1,2). Beyond the direct effect on maternal health, PPD has been shown to impact infant health across multiple domains including language, cognitive, and social emotional development, and sleep (2). PPD remains under-recognized and undertreated; an estimated 50% of cases are undiagnosed and only 11.8% of mothers who screened positive received mental health services in one 2019 study (3). In 2010, a report from the American Academy of Pediatrics advocated leveraging the multiple primary care visits that occur in early infancy to screen mothers for PPD and increase referral to mental health resources, (4) which has been shown to be effective (5,6).

At the Medicaid-based Cornell Resident Group Practice pediatric clinic, baseline PPD screening rates in 2021 were 66%, despite prior efforts to increase screening. As earlier research has shown that integrating a clinical psychologist into primary care clinics through a national program known as "HealthySteps" improves screening and referral for PPD (5), we sought to apply the same strategy in addition to other initiatives.

Objective:

Increase PPD screening using the Edinburgh Postpartum Depression Scale (EPDS) during well child visits at 2weeks through 4 months to 90%. Secondary aim is to increase referral rates for positive screens to appropriate mental health care to 100%.

Methods:

This is an observational time-series study over two years in a primary care clinic affiliated with a tertiary academic medical center. An interdisciplinary QI team including residents, attending physicians, a QI specialist, and psychologist created a key driver diagram (Figure 1). Interventions were derived using tertiary drivers (Figure 1) and tested via five PDSA cycles. Process (screening), outcome (mental health referral) and balancing measures (safe sleep counseling) were collected via EMR review at 2-week, 1-, 2- and 4-month well child visits. PPD screens were made available in 12 languages starting in January 2021 with tracking of language of screening beginning in May 2022, the workflow for PPD screening was introduced in August 2021, and a clinical psychologist was integrated into the clinic in June 2022. Statistical process control charts, run charts and subgroup analyses were used to analyze data. Run chart rules and API rules were applied to detect signal of change and special cause variation, respectively.

Results:

715 charts were reviewed. The overall PPD screening rate improved from 66 to 85% (Figure 2A). Positive screening rates remained unchanged at 10%, while the referral rate of patients who scored positive improved from 60 to 87% (Figure 2B). Subgroup analysis showed the lowest screening rates at the 2- week visit (61%, n=156) and in patients who spoke languages other than English (55%, n=42). There was no change in safe sleep counseling (balancing measure).

Conclusion(s):

Integration of a clinical psychologist into the resident clinic was effective in improving both screening and referral rates. The lower screening rates observed at 2-week visits may be because these visits focus primarily on weight trends. Given the lower number of non-English screens completed, improving workflow and educating

staff on how to perform non-English screens is important for further success. Future interventions for this ongoing project include implementing note templates for 2 -week visits and modifying existing note templates to track outcomes and languages of completed screens. Finally, we plan to expand the project to understand how screening, brief interventions, and appropriate referral impact outcomes, specifically using the EPDS score to follow the course of maternal depression over time.

Word Count: 569 (Max: 600, 2 Figures)

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Figure 1. Key Driver Diagram.

Figure 2. (A) Edinburgh Postpartum Depression Scale (EPDS) screening rate Improved after integration of "HealthySteps" clinical psychologist into Pediatric Primary Care Clinic (B) PPD referral rate for patients who had positive EPDS screen improved from 60% to 87% after referral workflow modifications and introduction of "HealthySteps"

A Resident Led Quality Improvement Project Incorporating a Clinical Psychologist to Improve Screening and Referral Rates for Postpartum Depression in a Pediatric Primary Care Clinic

Weill Cornell Medicine Pediatrics

Kelly Banks MD PhD¹, Julie Davila MD¹, Alim Esemenli MD¹, Matthew Tam MD¹, Bing Lin MD¹, Emily Scharf DO¹, Radha Sathanayagam MD¹, Samantha Bruno MD¹, Stephanie Trimboli MD¹, Joanna Lee MD¹, Richard Piszczatowski MD PhD¹, Sarah Allen Ray MD¹, Jeffrey Maniko MD¹ Diane Lee PsyD¹, Erika Abramson MD MS¹, Snezana Nena Osorio MD MS¹, Nancy J. Lee MD¹

Background

- Postpartum depression (PPD) is the most common obstetric complication affecting 10-16% of mothers^{1,2}
- PPD has been shown to impact infant health across multiple domains including sleep, language, as well as cognitive and social emotional development²
- PPD remains under-recognized and undertreated; an estimated 50% of cases are undiagnosed and only 11.8% of mothers who screened positive received mental health services in one 2019 study³
- At our Medicaid-based clinic, baseline screening rates in 2021 were 66%, despite efforts to increase screening through prior QI initiatives.
- Earlier research has shown that integrating a clinical psychologist into primary care clinics at well child checks (WCC) through a national program known as "HealthySteps" improves screening and referral for PPD⁴

Objectives

- 1) Increase PPD screening to 90% in 14-day through 4-month well visits
- 2) Increase referral rates to appropriate mental health care to 100%.

Methods

Study Design: Ongoing observational time-series study over 23 months. Process (screening), outcome (mental health referral) and balancing (safe sleep counseling) were collected via EMR review Patient population: 715 charts reviewed from 2week, 1-, 2- and 4- month well child visits in a primary care clinic affiliated with a tertiary academic medical center

Outcome: PPD screening rate and maternal mental health referral

Analysis: Data interpreted with statistical process control charts, run charts, and subgroup analyses. Run chart rules and API rules were applied to detect signal of change and special cause variation

- NewYork-Presbyterian KipS Komansky Children's Hospital

Title: Preventing Unplanned Extubations in the Neonatal Intensive Care Unit at NYP Queens

Authors: Michael Brandler, MD; Jane Abraham, RN; Leonardo Gonzalez, RRT; Joanne Bishara, MD

Department of Pediatrics, New York Presbyterian Queens

1. Statement of the Problem: An unplanned extubation (UE) is the inadvertent dislodgement of an endotracheal tube in a clinical patient setting. Historically, these events have been considered an expected consequence of care. However, a UE event can lead to cardiovascular collapse of the infant as well as the need for prolonged or invasive resuscitation. Additionally, time on a ventilator may be extended unnecessarily when plans to safely remove an endotracheal tube are not in place.

2. Objective/Aim of the study: The first aim is to establish and implement an enterprise-wide neonatal ICU unplanned extubation bundle in the NYP Queens NICU, and to achieve $\geq 80\%$ compliance with all elements of the bundle. The second aim is to reduce the rate of unplanned extubations on the NYP Queens campus by 10% from baseline within 6 months by implementing NYP NICU UE prevention bundle elements.

3. Project Design/Methods: We instituted use of the following initial bundle elements that were introduced to all sites in the NYP Enterprise: standardized anatomic reference points; standardized securement methods; a protocol for high risk situations; and establishing incident reporting and tracking. Education of these elements was given to all NICU patient-facing staff and compliance was monitored. Additional bundle elements were added after achieving compliance with initial bundle elements: annotate X-rays with depth of ETT; and bedside risk assessment tool.

UE events were tracked monthly and determined as the number of UE events per 100 intubation days. Reporting of UE events was done though KeepSafe electronic entry. Time intubated was reported electronically by the RT staff and monitored by NYP Quality Specialists.

4. Results: Staff compliance with the education for the elements was over 80% within one month of introducing. A rate of UE events at NYPQ was calculated at baseline, for 2021-April 2022. The measurement period was May-October 2022. The follow up period is from November 2022 – April 2023.

Baseline rate	Measurement period	Follow up period	67% I from baseline to
4.50	1.48	1.29	measurement period

5. Conclusions: This quality initiative shows it is possible to have NICU-wide acceptance and compliance with a quality improvement bundle. Additionally, it shows that is it possible to have a significant reduction on unplanned extubation events in a single unit. This could lead to improved outcomes for vulnerable infants, as well as earlier planned extubation and less ventilator days.

NewYork-Presbyterian Queens

Preventing Unplanned Extubations in the NICU at NYP Queens

2023 Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium Michael Brandler, MD FAAP May 24, 2023

Problem Statement: An unplanned extubation (UE) is the inadvertent dislodgement of an endotracheal tube in a clinical patient setting. Historically, these events have been considered an expected consequence of care. However, a UE event can lead to cardiovascular collapse of the infant as well as the need for prolonged or invasive resuscitation. Additionally, time on a ventilator may be extended unnecessarily when plans to safely remove an endotracheal tube are not in place. Multiple single-center studies have shown that quality improvement initiatives can reduce UEs.

Objective/Aim Statement: Aim 1: To establish and implement an NYP enterprise-wide neonatal ICU 'unplanned extubation bundle' in the NYP Queens NICU, and to achieve ≥90% compliance with all elements of the bundle. Aim 2: To reduce the rate of unplanned extubations on the NYP Queens campus by 10% from baseline within 6 months by implementing NYP NICU UE prevention bundle elements.

Design/Methods: Standardized bundle elements were introduced at NYPQ and at all NICUs in the NYP system. Initial elements included the use of standardized anatomic reference points, standardized securement methods, protocol for high risk situations, and establishing incident reporting and tracking through Keepsafe. Education of these elements was given to all NICU nurses, neonatologists, physician extenders, and respiratory therapists. Compliance with the education and practice was monitored. Additional elements were later added, which included annotating X-rays with depth of ETT, using a new securement method, and using a bedside risk assessment tool.

Results:

90% of NICU staff received education on budle elements in the required initial time period.

UE events were tracked monthly and determined as the number of UE events per 100 intubation days. Over the first 27 months of the project, there were 7 unplanned extubations. Baseline date was collected between May 2021-April 2022 and the UE rate was 4.5 per 100 ETT days.

The measurement period was from May-October 2022 and the UE rate was 1.48, which is a decrease of 67%. The follow up period was from November 2022-April 2023 and the rate is 1.34, a further decrease of 9.5%.

Conclusions/Lessons Learned:

This quality initiative shows it is possible to have NICU-wide acceptance and compliance with a quality improvement bundle. Additionally, it shows that is it possible to have a significant reduction on unplanned extubation events in a single unit. The biggest factors for an improved rate in our unit were felt to be unit-wide education and awareness, a standardized securement method, and staff awareness of high-risk situation plus beside assistance with such situations.

Next Steps:

During the project we changed our securement method to the NeoBar[®] holder and will continue this method. We are working on standardizing recognition of extubation readiness. We will continue the education of new staff members and use of our existing tools, such as the risk assessment. Our follow up rate has continued to decline and allows room for improvement.

Authors: Istvan Kanyo, Kathryn Phillips, Brienne Lubor, Morgan Smith, Snezana Osorio, and Jennie G. Ono

Institution: New York Presbyterian Hospital (NYPH)-Weill Cornell Medicine

Title: Resident-led Quality Improvement Initiative to Improve Environmental Assessment in Pediatric Asthma

Background: Asthma is the leading cause of chronic disease in children. In 2020, The National Institutes of Health (NIH) published the Expert Panel Report-4 guidelines detailing comprehensive care for pediatric asthma, which emphasized environmental assessment and mitigation of environmental triggers. Allergens are a significant contributor to morbidity in pediatric asthma. As exposure is a major risk factor for increased frequency of exacerbations. To adhere to updated guidelines and improve asthma control care for patients with asthma in our practice, we are seeking our goal is to increase the frequency of environmental screening (indoor/outdoor allergies and asthma triggers). Additionally, we aim to implement and subsequent environmental intervention or mitigations for positive screens.

Aim: To increase the percentage of environmental screening for well-child visits for patients with poorly controlled or persistent asthma to at least 50% at the NYPH-WCM resident-based clinic by June 2024, and to offer appropriate environmental interventions in 90% of identified patients with a positive assessment by June 2024.

Methods: This is an observational time series study taking place in a pediatric resident continuity clinic setting at NYP-Weill Cornell Medicine. Sequential planned experimentation was employed to improve process measures including: documentation of asthma severity and control and, as well as the assessment of environmental allergies and triggers. Our Balancing measure wass include total clinic time. Outcome measures include: the receipt of environmental interventions in patients with positive environmental screens, and improvement in asthma symptom control. Phase 1 studies studied the effect of interventions on establishing implementation of environmental screening in patients with asthma. In PDSA cycle 1, a resident-designed, well-child visit workflow was implemented to standardize asthma-specific questions focused on severity, control, and environmental triggers with a corresponding EMR template. This structured workflow was bundled with ongoing reminders for its use during pre-clinic huddles and educational sessions. 164 charts were reviewed over 11 months. Cycle 2 automatically incorporates this template into existing templates for well child visits and data collection is in progress. Phase 2 (not yet initiated) will focus on the implementation of interventions for positive screens and collection of outcome data and is not yet initiated. Outcome data will be collected during phase 2. During phase 1, 164 charts were reviewed over 11 months. In PDSA cycle 1, a resident-designed, structured informational workflow was implemented for clinic providers, which includes the critical components of a well-child visit for patients with asthma. This structured workflow was bundled with ongoing reminders for its use during pre-clinic huddles and educational sessions. The workflow includes the option of a generated template for the Electronic Medical Record (EMR) that assists and reminds providers to document severity, control, and environmental assessments. Cycle 2 automatically incorporates this template into existing templates for well child visits and data collection is in progress. Statistical control charts were used to display and analyze the data. API rules were applied to detect special cause variation.

Results: The documentation of asthma severity and control remained stable at 91 and 73 percent, respectively, with a trend towards improved control assessment. Documentation of indoor/outdoor allergies in all patients with asthma improved from 43% to 80% over the measured time period. Assessment of triggers was unchanged at 59%, however a trend toward improvement is noted and largely effected by one month (Aug 2022) of outlying data.

Conclusions: By creating a structured Asthma-workflow tool for well-child visits and increasing the ease of documentation of environmental assessments through a standardized template in the EMR, resident-led QI successfully improved screening rates for indoor/outdoor allergies which could improve asthma symptom control.

Fig. Percent of patients with asthma presenting at annual or asthma follow up visits receiving environmental screening.

Well-visits for patients with asthma: Workflow

Resident-led Quality Improvement Project to Improve Environmental Assessment in Pediatric Asthma

Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium, May 2023 Istvan Kanyo, Morgan Smith, Kathryn Phillips, Brienne Lubor, Snezana Osorio and Jennie G. Ono

Background

- Asthma is a leading cause of chronic disease in children. 0
- The 2020 NIH guidelines emphasized the importance of environmental assessment and mitigation of triggers in patients with asthma.
- It is important to use a multidisciplinary team in the care of patients with asthma, including health care providers, • asthma educators, social workers, and community health workers, to optimize asthma control.

Objective/Aim Statement

To increase the percentage of environmental screening during well-child asthma visits to 50% at the NYPH-WCM • resident clinic by June 2024 and to offer environmental interventions in 90% of patients with a positive assessment by June 2024.

Design/Methods

- The Method for Improvement framework was utilized, including a driver diagram which highlights opportunities to • improve environmental asthma control in a single pediatric resident group practice (April 2022- present)
- Process measures included documented indoor/outdoor allergies, asthma severity and control, asthma action plan, \bullet

and assessment of triggers

Baseline data was collected for 3 months prior to cycle 1 initiation. Data was collected via EMR review (n=164) \bullet charts). Statistical run charts were created to present and analyze data

Results

- Asthma severity and control documentation remained stable at 91 and 73 percent, respectively.
- Indoor/outdoor allergies documentation in all patients with asthma improved from 43% to 80% over the measured period.
- Trigger assessments were unchanged at 59%, however a trend toward overall improvement is noted and largely effected by one month (Aug 2022) of outlying data.

Conclusions/Next Steps:

- By creating a structured asthma workflow tool for well-child visits and increasing the ease of documentation of environmental assessments through the EMR, this resident-led QI project successfully improved screening rates for indoor/outdoor allergies, which could improve asthma symptom control.
- Future progress will address environmental interventions, comparing severity and control to previous visits. \bullet

Community Hospital Standardized Procedural Refresher for the Interprofessional NICU Team

Community Hospital SPRINT- Intubation

Natasha Shapiro (Kovtun) MD, FAAP

Problem Statement: Endotracheal intubation is a life-saving procedure commonly performed on critically-ill newborns. However, in community hospitals, providers might not have as many opportunities to perform this procedure due to decreased volume of patients. As a result, there is likely a decay in the knowledge and confidence in healthcare providers who are performing the procedure and the nurses and respiratory therapists who assist with intubation.

Objective/Aim Statement: The primary objective of this research project was to investigate if providing a skills refresher in neonatal endotracheal intubation will improve provider and nursing proficiency and confidence.

Design/Methods:

1. Participants were asked to answer a pre-test survey assessing their baseline knowledge and comfort level with neonatal intubation.

2. This was followed by a simulation case, during which their performance was evaluated with a procedural checklist, and a short educational debrief.

3. Participants then received intubation education which was composed of a combination of the

following: power-point presentation, educational video, topic sheets, and hands on in-person education. 4. Participants then participated in another simulation case and again evaluated with a procedural checklist.

5. The session ended with a short debrief which solidified best practices and evidence based procedural competencies which were reviewed in our skill-specific education phase followed by a post-test and comfort survey.

Results:

After the educational session we captured Likert survey responses from n=32 participants of which 100% of participants found the SPRINT-Intubation session was useful or very useful with 61% of participants responded very useful. 100% of participants responded that they wanted the session repeated yearly. Prior to the session, 66% of participants were confident performing NICU intubations while after the session confidence improved to 90%.

Conclusions/Lessons Learned:

Providing an educational refresher in neonatal endotracheal intubation improves provider and nursing proficiency and confidence in performing and assisting endotracheal intubation in our community hospital, NYP Queens. Future steps include incorporating a monthly skills refresher in other NICU procedures to include and not limited to, umbilical vein catheterization, nasograstric tube placement and chest tubes.

Community Hospital Standardized Procedural Refresher for the Interprofessional NICU Team **Community Hospital SPRINT- Intubation**

Natasha Shapiro MD, FAAP | May 25th 2023

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				confidence in our skills		
	good re	minder	repeat it monthly	reminder		guide lines
routine	practice	good	practice	staff	year	knowledge and skills
date	new staff	skills	rofrecher	repeated	useful	safe space
Yearly ree	ducation		renesher	way for	the pro	ocedure

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Pilot Implementation of a Behavioral Emergency Response Team Reduces Work-Related Injuries from Patient-to-Staff Violence

Kathleen Hanlon MD, Jennifer Powell BSN, RN, Susan Spezzano MSN, RN, NE-BC, Roseanne Raso DNP, RN, NEA-BC, FAAN, FAONL, Andrew Edelstein MD, Jihoon Ha MD, Lisa Sombrotto MD, Anna Dickerman, MD

Background/Significance: A behavioral emergency response team (BERT) is an interdisciplinary rapid response team for behavioral emergencies, typically on non-behavioral health units where staff members are less prepared to manage them. With increased national focus on reducing workplace harm in healthcare systems, there has been rising interest in utilization of BERTs (Parker, 2020). National trends in BERT implementation and literature findings exist mostly in the domain of behavioral health nursing (Loucks,2010). To our knowledge, there is no current publication describing interdisciplinary BERT implementation on a psychiatry consultation-liaison service.

Methods: Our consultation-liaison psychiatry department implemented a BERT pilot across all non-psychiatric inpatient floors as part of a quality improvement initiative. In addition to the primary team physician and nurse, our BERT teams consisted of a member of the C-L service (psychiatric resident or nurse practitioner), security, and nurse manager. We reviewed electronic health record data from the first 6 months post-implementation, specifically focusing on precipitating etiologies/events, interventions, and outcomes. We compared reports of work-related injuries from patient-to-staff violence over the 6 months pre- and post-intervention.

<u>Results</u>: There were 63 BERT activations representing 49 individual patients over the study period. BERT patients were more likely to be male, less likely to be discharged home, and had a longer length of stay (LOS) compared to all inpatients in general. Physical agitation was the precipitating event in 45% of activations, verbal agitation in 29%, self-injury in 6.5%, and destruction of property in 4.8%. 15% occurred after an assault to staff. The most common precipitating event was behavioral manifestations of confusion/delirium (41.9%), followed by patient perception of not being listened to or request being denied (29.0%), and attempt to leave against medical advice or elopement (9.7%). The most common underlying cause of the behavior was delirium (37%), followed by primary psychiatric illness (23%), interpersonal difficulties (13%), and substance withdrawal (6%). Excluding BERT activations in which no acute intervention was needed, verbal de-escalation was utilized in 89% and psychotropic initiation/changes were recommended in 80%. The C-L service was already consulted in 48% of activations, and 47% resulted in placement of new consults. Reported work-related injuries from patient-to-staff violence decreased by 22.6% post-BERT launch.

Discussion/Conclusions: The BERT was a feasible and effective means of rapid response, assessment, and evaluation of patients in the general hospital setting exhibiting an acute behavioral emergency. Implementation of the BERT was associated with a significant decrease in reported work-related injuries from patient-to-staff violence. BERTs play an emerging role for reducing harm in the medical setting.

References

Loucks, J., Rutledge, D.N., Hatch, B., Morrison, V. Rapid Response Team for Behavioral Emergencies. J. Am. Psychiatr. Nurses Assoc. 2010;16(2):93-100 Parker, C.B., Calhoun, A., Wong, A.H., Davidson, L., Dike, C. A Call for Behavioral Emergency Response Teams in Inpatient Hospital Settings. AMA J Ethics. 2020;22(11):E956-964.

Pilot Implementation of a Behavioral Emergency Response Team Reduces Work-Related Injuries from Patient-to-Staff Violence

Kathleen Hanlon MD¹, Jennifer Powell BSN, RN¹, Susan Spezzano MSN, RN, NE-BC¹, Roseanne Raso DNP, RN, NEA-BC, FAAN, FAONL¹, Andrew Edelstein MD¹, Jihoon Ha MD¹, Lisa Sombrotto MD¹, Anna Dickerman, MD¹ ¹New York Presbyterian/WeillCornell Medical Center

Background: A behavioral emergency response team (BERT) is an **Results:** There were 63 BERT activations representing 49 interdisciplinary rapid response team for behavioral individual patients over the study period. Physical agitation emergencies, typically on non-behavioral health units where staff members are less prepared to manage them. With increased national focus on reducing workplace harm in healthcare systems, there has been rising interest in utilization of BERTs (Parker, 2020). National trends in implementation and literature findings exist mostly in the domain of behavioral health nursing (Loucks, 2010). To our knowledge, there is no publication describing interdisciplinary BERT current implementation on psychiatry consult-liaison service.

Methods: Our consultation-liaison psychiatry department implemented a BERT pilot across all non-psychiatric inpatient floors as part of a quality improvement initiative. In addition to the primary team physician and nurse, our BERT teams consisted of a member of the C-L service (psychiatric resident or nurse practitioner), security, and nurse manager. We reviewed electronic health record data from the first 6 months postimplementation, specifically focusing on precipitating etiologies/events, interventions, and outcomes. We compared Keep-Safe reports of work-related injuries from patient-to-staff violence over the 6 months pre- and post-intervention.

Aim: Our aim was to initiate a BFRT team on all inpatient units as a quality improvement initiative to reduce workplace harm.

was the precipitating event in 45% of activations, verbal agitation in 29%, self-injury in 6.5%, and destruction of property in 4.8%. 15% occurred after an assault to staff. The most common underlying cause of the behavior was delirium (37%), followed by primary psychiatric illness (23%), interpersonal difficulties (13%), and substance withdrawal (6%). Excluding BERT activations in which no acute intervention was needed, verbal de-escalation was utilized in 89% psychotropic initiation/changes and were recommended in 80%.

	BERT Patients (n=49)	Inpatients (n= 13,878)
Average Age ± SD (years)	56.1 ± 22.4	59 ± 22.0
Average LOS ± SD (days)	18 ± 18.2	7 ± 11
% Male	59.2%	50.1%
% Non-English Speaking	22.4%	
Disposition		
% Psych Hospital	14%	2.1%
% Rehab Facility	16.3%	1.8%
% AMA	10.2%	1.5%
% Home	40.8%	77.1%

Table 1. BERT patients were more likely to be male, less likely to be discharged home, and had a longer length of stay (LOS) compared to all inpatients in general.

Figure. 1 Reported patient to staff work-place violence (WPV) decreased by 26.2% post-BERT launch.

Discussion/Conclusion: The BERT was a feasible and effective means of rapid response, assessment, and evaluation of patients in the general hospital setting exhibiting an acute behavioral emergency. Implementation of the BERT was associated with a significant decrease in reported workrelated patient-to-staff violence. BERTs play an emerging role for reducing harm in the medical setting. Given the expertise of consultation-liaison psychiatrists in management of agitation in the general medical setting, we argue that it is appropriate and necessary for our discipline to be involved in further clinical work and research on BERTs.

References

1) Loucks, J., Rutledge, D.N., Hatch, B., Morrison, V. Rapid Response Team for Behavioral Emergencies. J. Am. Psychiatr. Nurses Assoc. 2010;16(2):93-100

2) Parker, C.B., Calhoun, A., Wong, A.H., Davidson, L., Dike, C. A Call for Behavioral Emergency Response Teams in Inpatient Hospital Settings. AMA J Ethics. 2020;22(11):E956-964.

B STRONG: Evaluating Breast Cancer Survivors' Perception of Weight Management

Genevieve A. Fasano¹ Solange Bayard¹ Josh Johnson¹ Ashley Gordon² Mia Harris² Evelyn Taiwo² Jennifer Yeung² Michael Zenilman² Lisa Newman¹ Vivian J. Bea²

¹New York Presbyterian Weill Cornell Medicine, Department of Surgery ²New York Presbyterian Brooklyn Methodist Hospital, Department of Surgery

Problem: Obesity and weight gain in breast cancer survivors leads to a greater risk of recurrence and decreased survival. A paucity of data exists regarding the strengths, weaknesses, and barriers for implementing culturally sensitive, patient-centered interventions for weight management among minority communities.

Objective: The objective of this study was to evaluate breast cancer patients' experiences and perspectives regarding weight management in a racially diverse population, as part of a larger implementation project to develop a patient-centered comprehensive weight management program for breast cancer patients.

Project Design: This was a qualitative study utilizing semi-structured interviews to develop an understanding of breast cancer patients' opinions, feelings, experiences, and knowledge regarding weight management. Adult female patients diagnosed with in situ or non-metastatic invasive breast cancer from January 2020 to December 2021 were identified through a prospectively maintained database of patients at New York Presbyterian Brooklyn Methodist Hospital. Eligible patients were English speaking with a body mass index (BMI) of at least 25 kg/m², and had to have completed surgery, chemotherapy, and/or radiation treatments. Semistructured one-on-one interviews were completed after informed consent. Transcripts were analyzed and content analysis was utilized to identify major themes and sub-themes. **Results**: Participants (n = 17) most commonly self-identified as non-Hispanic Black (70.6%). Nearly all participants felt comfortable being approached about weight management, yet less than half (41.2%), reported that they knew about the link between breast cancer and body weight prior to the interview. Four themes emerged: (1) lack of knowledge regarding the link between body weight and breast cancer risk, (2) barriers to weight management including family stressors, high cost, mental health issues, and chronic medical conditions, (3) previous attempts at weight loss including bariatric surgery, and (4) best practices for approaching weight

management including discussion prior to survivorship. **Conclusions:** There is a need for a multidisciplinary, patient-centered weight management program for minority breast cancer patients that improves awareness of the link between weight and breast cancer risk. Weight management should be introduced early on as an element of the treatment plan for breast cancer.

-NewYork-Presbyterian

Brooklyn Methodist Hospital

B STRONG: Evaluating Breast Cancer Survivors' Perception of Weight Management

Genevieve Fasano, Solange Bayard, Josh Johnson, Ashley Gordon, Mia Harris, Evelyn Taiwo, Jennifer Yeung, Michael Zenilman, Lisa Newman, Vivian J. Bea

Introduction

Obesity disproportionately impacts women of color. Non-Hispanic Black adults have the highest age-adjusted prevalence of obesity. In the United States, **4 out of 5** Black women are overweight or obese.

Project Design

Major Theme: Barriers to Weight Management

- Family stress
- High cost of healthier foods
- Mental health issues
- Chronic medical conditions
 Major Theme: Previous
 Attempts at Weight Loss
- Good food vs. Bad food
- Structured weight loss programs
- Medical and surgical weight loss

Obesity is linked to an increased breast cancer risk and worse outcomes are seen for breast cancer patients who are obese irrelevant of subtype and menopausal status.

Current guidelines for weight management after breast cancer focus on survivorship and lack guidance for providers on how to engage with and counsel patients longitudinally.

There is a paucity of data regarding strengths, weaknesses, and barriers for

Results

- 17 participants were interviewed
- Median number of days since diagnosis: 340 days
- Median age: 58 years (range 43-75)
- Most (70.6%) participants identified as non-Hispanic Black
- Median BMI was 34.6 kg/m²
- 58.9% privately-insured and 41.4% insured by Medicaid and Medicare
- Nearly half (47.1%) had either neoadjuvant or adjuvant chemotherapy

Major Theme: Approach

- Comfortable being approached by breast cancer team
- Introduce sooner rather than later

Conclusions

There is a need for a **multidisciplinary, patientcentered weight management program** for minority breast cancer patients that improves awareness of the link between weight and breast cancer risk. Weight management should be introduced **early on** as an element of the treatment plan for breast cancer.

Next Steps

implementing culturally sensitive, **patient-centered interventions** for weight management among minority communities.

Objective

Evaluate breast cancer patients' experience and perspectives regarding weight management in a racially diverse population to inform development of a comprehensive, patientcentered weight management program. All but one participant felt comfortable being approached about weight management yet less than half (41.2%) of participants reported that they knew about the link between breast cancer and body weight prior to the interview.

Major Theme: Lack of Knowledge

- Motivation to learn more through self-directed reading
- Personal beliefs regarding the link
- Lack of education from
 providers

- Launch of Breast Strategies
 To Reduce Oncologic risk through Nutritional Guidance and referral
- Creation of patient education video, viewed in clinic
- Currently tracking referral patterns and patient BMI at diagnosis, during treatment, and during survivorship

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