Annual WCM
Quality Improvement & Patient Safety
Poster Symposium

Abstracts and Posters

25 May 2022
Weill Cornell Medicine

Co-Sponsored by:

Quality Improvement Academy
and
Physician Organization | Division of Quality and Patient Safety
and
NewYork-Presbyterian Department of Nursing
June 1, 2022

Dear Colleagues,

First organized in 2013 through the Weill Department of Medicine, the Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium is now co-sponsored through Weill Cornell’s Quality Improvement Academy, NYP’s Department of Nursing and the Physician Organization’s division of Quality and Patient Safety. We are proud to continue this groundbreaking interdepartmental and interdisciplinary celebration of quality and patient safety initiatives and innovations from Weill Cornell uptown, Lower Manhattan, NYP/Queens and NYP/Brooklyn-Methodist.

This year’s poster event was held in the Harkness Courtyard on May 25, 2022. We were excited to showcase 27 projects across 13 departments, 14 of which were from the graduating QIA Class of 2022. Through a peer-review process by our QIA alumni, we recognized three Weill Cornell projects from those featured for their incorporation of QI and safety methodology, innovation, and impact on patient care: Management of Infants at Risk for Early Onset Sepsis (Department of Pediatrics, WCM), Palliative Care in the Emergency Department (Department of Emergency Medicine, WCM), and Telehealth Access in a Multi-lingual Urogynecology Patient Population (Department of Obstetrics and Gynecology, WCM/NYP-Queens). Also included were the top three graduate medical education projects selected during this year’s NYP CLER- House Staff Quality Improvement Poster Session.

This e-catalog features the projects shared at this year’s event. Congratulations and thank you to all for your participation, achievements and ongoing commitment to patient care. And a heartfelt thank you to Dean Augustine Choi and Dr. Anthony Hollenberg, Sanford I. Weill Chair, Weill Department of Medicine, for their ongoing support of academic quality improvement initiatives and scholarship across Weill Cornell Medicine.

With gratitude,

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THANK YOU!

Steering Committee

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* Selection Committee

WDOM Quality Improvement and Patient Safety Committee
Quality Improvement Academy Alumni
Housestaff Quality Council

*
Appendix

Quality Improvement Academy: Graduating Class of 2022

- Improving Transitions of Care for Older Adults in an Ambulatory Geriatrics Clinic to Reduce 30-Day Readmissions
  Kelly Cummings, MD; et al.
  Weill Department of Medicine

- Reducing Falls Among Patients with Cancer at NYP-Weill Cornell Medicine
  Christine Garcia, MD & German Rodriguez, RN; et al.
  Weill Department of Medicine
  NYP-Department of Nursing

- Reducing Telemetry Utilization in Hospitalized Comfort Care Patients
  Ramsey Kall, MD; et al.
  Weill Department of Medicine

- Study of Telemedicine via Virtual Video Visits in Symptom Monitoring and Management of Cancer Patients Treated with Systemic Therapies in Brooklyn
  Uqba Khan, MD; et al.
  Weill Department of Medicine (NYP-Brooklyn Methodist)

- Management of Risk Factors for Non-Alcoholic Fatty Liver Disease After Transplant
  Emily Schonfeld, MD; et al.
  Weill Department of Medicine

- Development of a Pediatric to Adult Transition Clinic for Young Adults with Type 1 Diabetes for Continuity of Care
  Tiffany Yeh, MD; et al.
  Weill Department of Medicine

- Medical Malpractice: Breaking the Culture of Silence to Improve Physician Wellbeing and Patient Care
  Lucy Willis, MD, et. al.
  Department of Emergency Medicine

- Botox for Sialorrhea in the NeuroICU
  Judy Ch’ang, MD; et al.
  Department of Neurology

- In Vitro Fertilization Treatment Care Coordination
  Feruza Esanova, RN; et al.
  NYP-Department of Nursing

- Virtual Field Testing
  Paul Petrakos, DO MS; et al.
  Department of Ophthalmology

- Using Self-Reporting Event System to Identify Potential Social Determinants of Health in Safety Events in the Pediatric Intensive Care Unit
  Megan Toal, MD; et al.
  Department of Pediatrics

- Improving Access to Multidisciplinary Breast Cancer Care for Patients with Locally Advanced Breast Cancer
  Vivian Bea, MD; et al.
  Department of Surgery (NYP-Brooklyn Methodist)
Projects Featured

- **Improving Accuracy and Efficiency of Regional Block Administration for Breast Surgery**
  Dierdre Kelleher, MD; et al.
  Department of Anesthesiology

- **Palliative Care in the Emergency Department**
  Brenna Farmer, MD; et al.
  Department of Emergency Medicine

- **Starting the Conversation: Early Initiation of Goals of Care (GOC) May Reduce Inpatient Mortality**
  Calvin Hwang, MD; et al.
  Weill Department of Medicine (NYP-Queens)

- **MoMA Social Rx - Introduction to Watercolor Painting for People with Parkinson's**
  Abby Andrew, LCSW; et al.
  NYP-Department of Nursing

- **Block the Clot: Reducing Healthcare-Related Venous Thromboembolism**
  Jeffrey Rehnlund, RN; et al.
  NYP-Department of Nursing

- **Telehealth Access in a Multi-lingual Urogynecology Patient Population**
  Laura Kim, MD; et al.
  Department of Obstetrics and Gynecology (NYP-Queens)

- **Comparison of Intraoperative Breast Axillary Sentinel Node Frozen Section Diagnosis Concordance Between Digital Pathology and Glass Slides**
  Diana Berman, MD; et al.
  Department of Pathology and Laboratory Medicine

- **Improving Resident Preparedness for Rotations in the Pediatric Intensive Care Unit: A Pediatric Critical Care Fellow-driven Quality Improvement Initiative to Optimize Orientation**
  Eric Wilsterman, MD; et al.
  Department of Pediatrics

- **Management of Infants at Risk for Early Onset Sepsis**
  Erin Kelly, PA; et al.
  Department of Pediatrics

- **Impacts of Travel Time on Appointment Frequency and No Show Rates at a NYC Free Clinic**
  Gabrielle Ramirez; et al.
  Weill Cornell Medical School

HQC CLEAR Committee Recognitions

- **Improving Shingles Vaccination Rate at a Family Medicine Clinic in Washington Heights**
  Amy Sun, MD; et al.
  NYP Primary Care (NYP-Columbia)

- **Increasing Healthcare Proxy Documentation in an Outpatient Geriatric Medicine Practice**
  Emily Coskun, MD; et al.
  Division of Geriatric Medicine
  Weill Department of Medicine

- **Improving Rates of Pneumococcal Vaccination in Pediatric Rheumatology Patients with Systemic Lupus Erythematosus at Hospital for Special Surgery**
  Lauren Robinson, MD; et al.
  Division of Rheumatology (HSS)
Improving Transitions of Care for Older Adults in an Outpatient Geriatrics Clinic

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium
Kelly Cummings MD, Emily Fessler MD, Jihui Lee PhD, Robert Kim MD | May 25th, 2022

Background
• Discharge from the hospital is a time of heightened vulnerability for lapses in safety and quality, specifically for older adults.
• Transitional care management (TCM) programs have been developed to improve effective care transitions, reduce 30-day readmissions, and are reimbursable under Medicare.
• Currently, our ambulatory geriatrics practice, The Center on Aging (CoA), partners with the Physician’s Organization to provide TCM services.
• This program is limited based on the patient’s insurance and excludes the dual-eligible (Medicare/Medicaid) population.
• We are not currently providing equitable transitional care to all patients at the CoA.

Results

Methods
• Setting: Outpatient geriatrics clinic with 3500+ patients ≥ 65 years old.
• Study Population:
  • Established patients of the CoA discharged to home from Weill Cornell Medicine (WCM) Hospital.
  • Exclusion criteria:
    1. Admitted for planned admission or elective procedure.
    2. Discharged to rehab, nursing home, hospice or against medical advice.

Aim Statement
• We aim to increase the percentage of matched TCM visits for dual-eligible CoA patients from 25% to 60% and for all CoA patients from 40% to 80% by June 30th, 2022.

TCM Components

Discharge

0-2 business days

0-14 calendar days

Complete TCM = Matched TCM + "TCMVisit" smartphrase + TCM billing code (99495, 99496)

Table 1. Number of dual-eligible CoA patients discharged per month.

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Figure 1. Process measure. % TCM calls for dual-eligible discharges.

Figure 2. Outcome measure. % matched TCM for dual-eligible discharges.

Figure 3. Process measure. % complete TCM for dual-eligible discharges.

Figure 4. Outcome measure. P chart showing % matched TCM out of all eligible discharges.

Conclusions:
• Our first intervention established a workflow with the Ambulatory Care Network care management team at WCM to proactively provide dual-eligible patients with TCM services. Further PDSA cycles refined this process.
• Early data shows an increase in rates of matched TCM for dual-eligible discharges.
• Mismatch persists between rates of TCM calls, matched TCM, and complete TCM, indicating further improvements are needed to improve TCM visit rates, as well as correct documentation and billing.
• Over 1/3 of the time providers missed the opportunity to bill for TCM services despite all components being met.

Next Steps
• Future interventions include those aimed at improving communication between inpatient/outpatient teams; utilizing geriatric fellows’ clinic to increase TCM visit availability; direct provider TCM completion performance feedback; and increase utilization of telehealth for TCM visits.
• Further data collection and analysis needed to evaluate impact of matched TCM on 30-day readmission rates.

Acknowledgements
• Special thank you to Kimberly Rosado MSN RN-BC, Justine Llop RN, Felvic Adriatico RN, Semhar Fisseha MPH, Joy Gelman MD, Physician’s Organization Care Management Team, Melissa Bryant, and the Center on Aging Team.
Reducing Unassisted Falls Among Patients with Cancer at New York Presbyterian/ Weill Cornell Medicine: A Multipronged Approach
Christine A. Garcia, MD, MPH & German Rodriguez, MSN, RN

Background
- Patients with cancer are at particularly high risk for falls and unfortunately may suffer worse outcomes with falls:
  - Increased risk for fractures due to bony metastases
  - Worse subsequent bleeding due to thrombocytopenia from disease or from anticoagulation
  - Cancer patients over the age of 50 years are more likely to die in-hospital after a fall than elderly patients without cancer.

Problem
- At Weill Cornell Medicine, in 2020, there were 67 falls among patients with cancer admitted to oncology floors, accounting for 12.4% of all falls.
- In 2020, there were 67 falls among patients with cancer admitted to oncology floors, accounting for 12.4% of all falls.
- Of the patients that fell during their inpatient admission during 2020, 20% of these patients were not considered “high risk for falls” based on the Morse Falls’ risk assessment.

Objective/Aim Statement
- To reduce the rate of unassisted inpatient falls per 1000 patient days on oncology inpatient units (10N, 10S, 10C, 10W) at New York Presbyterian/ Weill Cornell Medicine by 10% from January 31, 2021 to June 30, 2022

Existing Knowledge & Gaps
- CC-CA has been shown to have a strong concordance index for predicting falls and higher discrimination than the Morse Fall Tool for patients hospitalized for cancer management.2
- MSKCC falls’ risk assessment instrument which incorporates history of a previous fall, age >65 years, sensory deficits, cognitive changes, impaired mobility, generalized weakness, and medications was associated with a 91% positive predictive value for falls.3
- It is unclear if Morse Falls’ Risk adequately predicts for falls among cancer patients.

Study Design
- QI project at WCM 10th floor for oncology patients
- Collect additional variables for risk of falls
- Nurses to enter data into Redcap during each shift when adding Morse Falls’ Risk Assessment
- Includes 10 risk factors from CC-CA and MSKCC not previously validated outside of these institutions
- Compare to SOC Morse Fall’s Risk Assessment scores at same time of collection to better risk stratify patients

QI Interventions

Iterative PDSA Cycles

Cycle 1: 2/2021
Multidisciplinary RCAs
Rapid Cycle Falls’ Audit

Cycle 2: 3/2021
Interdisciplinary Falls’ Education (APPs, RN, EVS, MD)
New Falls’ Signage

Cycle 3: 6/2021
Falls’ Prevention Board

Cycle 4: 7/2021
Prospective Risk Assessment Tool

Results

Balancing Measures & Barriers
- Burden on PT for increasing consults
- Burden on data collection on nurses

Barriers
- COVID Omicron wave 12/2021-1/2022 - Understaffing, temporary staffing
- Data collection was challenging & burdensome
- EPIC – Redcap technical difficulties

Conclusions/Lessons Learned
- Important to have key stakeholders involved- RNs, PCDs, physicians, EVS, dieticians, patients and families
- 5 WHYs of Falls are important to get to the root cause of falls
- For sustainable changes, must be built into IT
- Standardized enterprise-wide post huddle form to debrief falls important
- Consider extension into outpatient setting to improve handoff for admitted patients

Next Steps
- Start prospective collection of additional risk factors for oncology patients that may better predict for falls
- Create our own tool to predict risk of falls for oncology patients

Oncology Falls’ Reduction Project Team

Balancing Measures

- Burden on PT for increasing consults
- Burden on data collection on nurses

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Oncology Falls’ Reduction Project Team

Project Leaders
Christine Garcia, MD, MPH
German Rodriguez, MSN, RN

Project Team
- Kathleen DeJesus, RN
- Stefanie Taflin, RN
- Jessica McDonough, RN
- Dana Dejesus, RN
- Maria Beltran York, MSN, RN
- Dianna Assalone, RN, PCD,10W
- Catherine McHugh, RN, Quality & Patient Safety Specialist
- Catherine McHugh, RN, Quality & Patient Safety Specialist

New Post-Fall Debrief Tool

New Falls’ Signage

References
Reducing Telemetry Utilization in Hospitalized Comfort Care Patients

Christine Park MD*, Ramsey Kalil MD*, Jihui Lee PhD, Evan Sholle MS, Brock Daniels MD, Jennifer I Lee MD

*co-first authors

Background
Telemetry overutilization increases healthcare costs, unnecessary interventions and may result in patient harm, particularly if utilized at the end of life. Comfort care patients are particularly vulnerable to unnecessary telemetry use.

Aim Statement
We aimed to decrease the use of telemetry in hospitalized comfort care patients admitted to Medicine teams at NYP-WCM, defined by active telemetry and comfort care orders in the EMR, by 25% compared to baseline from October 2020 to April 2022.

Methods

STUDY POPULATION
- Adult patients on Medicine services at NYP-WCM with ‘comfort care’ and telemetry orders.
- Intervention arm = teaching services with house staff providers
- Control arm = PA services

INTERVENTION
- Education on indications for telemetry and how to appropriately discontinue telemetry orders in the EMR beginning October 2021
- EMR modification of the official ‘comfort care’ order set to include a “Discontinue telemetry” option implemented during February 2022

OUTCOME MEASURES
- # of comfort care patients with active telemetry orders
- % of comfort care patients with active telemetry orders
- Time to correctly discontinued telemetry order
- # of comfort care patients with telemetry discontinued
- % of correctly discontinued telemetry in comfort care patients

PROCESS MEASURES
- # Comfort Care Patients with Telemetry Discontinued (House staff)
- # Comfort Care Patients with Telemetry Discontinued (PA)

BALANCING MEASURES
- % Correct Discontinue Telemetry Order (House staff)
- % Correct Discontinue Telemetry Order (PA)

LIMITATIONS
- Single center study with small sample size
- Our initial intervention (resident education) was primarily educational and relied on retention of knowledge within the house staff providers

Next Steps
- Analyze more data on the efficacy of the EMR change
- Knowledge retention surveys based on education sessions

Results
By the end of the study period...

- The # of comfort care patients with telemetry orders decreased from a median of 18 to 11.5 per month, though the % of comfort care patients with telemetry orders remained stable
- House staff were more likely to place the correct order to discontinue telemetry than PAs, and they did so earlier
- The # of correct discontinue telemetry orders improved from a median of 1 to 4.5 in house staff and 1 to 3.5 in PA patients
- Similarly, the % of comfort care patients whose telemetry was discontinued improved
- There were no changes in the amount of telemetry reordered after discontinuation

Conclusions
- We observed an overall increase in number of discontinued telemetry orders in house staff teams since the start of education
- House staff are more likely to place the correct order to discontinue telemetry earlier
- There has been a large reduction in the overall number of comfort care patients with telemetry orders
Study of Telemedicine via Virtual Visits in Symptom Monitoring and Management of Cancer Patients Treated with Systemic Therapies in Brooklyn

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

Uqba Khan MD, Jakyung Bang MD | May 25th, 2022

Problem Statement

• Symptoms are common among patients receiving treatment of advanced cancers (e.g., vomiting, diarrhea, pain, neuropathy, fever, cough etc.)
• Symptoms precipitate ER visits and hospital admissions
• Several symptoms are associated with worse survival in advanced cancer and lead to functional impairment and deconditioning
• Evidence suggests that clinicians frequently miss or underestimate the severity of patients’ symptoms
• Development of systems to identify symptoms may enhance existing approaches to monitoring and managing symptoms, leading to improved outcomes.
• Racial and Ethnic minority patients are especially vulnerable due to lack of access to high quality care
• At NYP-Brooklyn Methodist Hospital, we see primarily underserved populations. Our institutional data shows more than 50% of our patients are racial and ethnic minorities.

Aim Statement

• The aim of this project is to improve health-related quality of life by 6 points as measured by EuroQol EQ-5D and compliance of cancer patients with advanced solid organ malignancies treated at NYP-Brooklyn Methodist Hospital by incorporating telehealth visits between scheduled office/chemotherapy visits.

Design/Methods

Study of Telemedicine via Virtual Video Visits in Symptom Monitoring and Management of Cancer Patients Treated with Systemic Therapies

Process Map

Study of Telemedicine via Virtual Video Visits in Symptom Monitoring and Management of Cancer Patients Treated with Systemic Therapies

Inclusion Criteria
• Stage 4 or unresectable cancer patients
• Quality of life assessment
• Number of ER visits and hospitalizations

Outcome Measures
• % of patients whose QoL is improved by at least 6 points on EQ-5D
• Percentage of patients whose ER/Hospitalizations were reduced compared to average no. of ER visits and hospitalizations

Process Measures
• “Health today” score, determined by asking patients to rate their overall health on a scale of 100, also increased by 18.3% in the intervention group, while decreasing by 5.1% in the control group (Figure 4).

Results

• Study was limited by the number of data collected in this interim analysis (n=5, control; n=9, intervention).
• After 6 months since the start of systemic therapy, total score of EQ-5D decreased by 7.93% in the control group, while increasing by 7.31% in the intervention group (Figure 3).
• “Health today” score improved by 7.31% in the intervention group (Figure 3).
• Number of ER visits and hospitalizations were higher in the control group, even though intervention group had higher numbers of delays in chemotherapy, no shows for clinic visits and chemotherapy sessions (Figure 5).

Balancing Measures
• Patients’ ability to use tech devices including knowledge on use, access to devices and/or internet
• For ER and hospitalization endpoints, cumulative incidence functions will be calculated with death treated as a competing event.

Analysis
• Linear mixed model analysis will be performed where the EQ-5D score will be the dependent variable
• For ER and hospitalization endpoints, cumulative incidence functions will be calculated with death treated as a competing event.

Conclusions/Lessons Learned

• Utilization of telemedicine in cancer patients undergoing systemic therapy may be an effective way to address the many cancer-related or therapy-related symptoms that patients experience and, therefore, can increase their quality of life as well as their perception of overall health.
• This use of telemedicine may also potentially prevent ER visits and hospitalizations, suggesting a cost-effective strategy to care for these patients.

Next Steps

• Further efforts will be made to increase the sample size, by continuing to follow up on the currently enrolled patients and by enrolling more new patients.

References

Background:
Non-alcoholic fatty liver disease (NAFLD) affects about 25% of the world’s population
NAFLD recurs post-transplant in about 24-31% of patients who were transplanted for non-alcoholic steatohepatitis (NASH) or cryptogenic cirrhosis
Post-transplant immunosuppression predisposes patients to the development of HTN, DM and the metabolic syndrome, which increases the risk of recurrent or de novo NAFLD
There is no standard of care for post-transplant treatment of NAFLD and transplant programs inconsistently address risk factors and co-morbidities for NAFLD post-transplant

Project Goals:
The project goal is to provide a standardized method to consistently screen, diagnose, and treat patients with risk factors for post-transplant NAFLD

Aim:
The aim of the project is for 50% of post-transplant patients to be screened for NAFLD risk factors at 3-month intervals for the first-year post-liver transplant and That 75% of the patients who meet the criteria for substantial weight gain, new onset DM, post-transplant hypertension, and signs of recurrent or de novo NAFLD

Management of Risk Factors for Non-Alcoholic Fatty Disease After Liver Transplant:
Decrease FAT (Fatty Liver After Transplant)

Methods:
A standardized protocol for the Decrease FAT project was provided to the Center for Liver Disease and Transplantation providers at WCMC (Figure 1). Liver transplant recipients were followed during their first-year post-transplant to confirm that HbA1c, lipid panel, blood pressure, and signs of recurrent or de novo NAFLD were evaluated every 3 months, that weight was checked every 6 months, and that appropriate follow-up was provided based on the results.

A retrospective investigation into patients transplanted prior to the study initiation was conducted to evaluate previous practices at WCMC.

Methods:
Zoom meetings about the protocol were held every 1-2 months. EPIC, the electronic medical record, was used to create a smartphrase for clinic notes as well as a liver post-transplant synopsis section that focused on metabolic health. Clinic reminders were posted in clinic and providers were given a fact sheet about the study.

Figure 1: Process Map

Figure 2: Process Map

Results:
The study was initiated on September 1, 2021. 40 patients were included in the post-intervention or prospective group and 84 in the standard of care or retrospective group. Table 1 demonstrates that the percentage of patients who had a lipid panel, HbA1c and BP check within the first year were similar between the two groups. Figure 2 and 3 demonstrate the rate of patients who had each variable assessed at 3, 6, 9 and 12 months after transplant.

Table 1

Table 1

Conclusions:
Despite educational sessions and posted reminders, use of the tools developed to assess for FAT were not adopted as much as anticipated through the course of the study. This was likely due to the rise of video visits during the COVID-19 pandemic, which precludes frequent blood pressure checks in clinic, standardized lab order sets that do not include a lipid panel and HbA1c, and that metabolic health is not often part of post liver transplant note templates.

Next steps will include working with providers to use individualized shortcuts in the EMR for increased adherence to the protocol.

References:
Yalamanchili K, Saadeh S, Klintmalm GB, Jennings LW, Davis GL. Nonalcoholic fatty liver disease after liver transplantation for cryptogenic cirrhosis or nonalcoholic fatty liver disease. Liver Transplant 2016; 22(11): 1375-1379
Yousufi ZM. Non-alcoholic fatty liver disease - A global public health perspective. J Hepatol 2019; 70(3): 531-544
Development of a Pediatric to Adult Transition Clinic for Young Adults with Type 1 Diabetes

Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium
Tiffany Yeh, MD || Division of Endocrinology, Diabetes, and Metabolism

Background
- Young adults with T1DM face challenges in managing their diabetes
- Physical, social, economic, and systematic barriers to transition from pediatric to adult endocrinology
- Gaps in care lead to ↑ HgbA1c, DKA, microvascular complications
Currently, no formal transition process at WCM

Objective/Aim Statement
- Establish a joint pediatric to adult clinic
- Assess the feasibility of this clinic by looking at: the % of patients who participate in Transition Clinic that have a completed adult endocrinology follow-up within 1 year.

Design/Methods
- Establish the Transition Clinic
  - Workflow
  - Logistics
  - Technology download capabilities
- Stakeholder survey

Pediatric Endocrinology Survey Results
What prevents you from transitioning care?
- Ending a long-term relationship
- No established protocol
- I don’t know WHO to transfer to
- Services: tech, mental health, social work
What would be MOST helpful?
- Joint discussion with adult provider
- Protocol for referring patients

Results
- Launched 2/12/20
- 43 total visits as part of Transition Clinic
- 16 patients entered Transition Clinic
- 12 patients successfully transferred to WG4
  - 2 patients took longer than 1 year to transition to adult care
  - 3 still en-route
  - 1 patient lost to follow-up

Conclusions/Lessons Learned
- Established a Joint Pediatric & Adult Endocrinology Transition Clinic for T1DM
- Key features: warm hand-off, hybrid workflow, joint visits
- Successful transition of 12 patients total (10 within the 1-year timeframe)

Next Steps
- Get feedback from patients
- Look at long-term adult outcomes
- Expand adult provider access
- Expand to other medical conditions
Medical Malpractice: Breaking the Culture of Silence to Improve Physician Wellbeing and Patient Care
Lucy Willis, MD | May 25, 2022

Problem Statement:
The majority of Emergency Physicians will be sued. This can lead to Medical Malpractice Stress Syndrome, characterized by isolation, guilt, anxiety, depression, anger, negative self-image, feelings of helplessness and hopelessness, and even suicide. This culture of silence and isolation is also antithetical to the QPS concept of Just Culture, which looks towards system-based causes and learning from medical error and bad outcomes.

Objective/Aim Statement:
To create an EM case-based peer support program and achieve >80% agreement (strongly agree and agree) with the statement ‘the peer support program is a valuable resource’ on post-implementation survey results by July 2022

Design/Methods:
• Initial faculty survey to establish need and baseline
• Training & implementation of opt-out case-based peer support program
• 6 month post-implementation survey to evaluate efficacy of peer support program

Initial Survey goals:
• Assess the amount of litigation within our faculty group (both past and present)
• Assess stress of faculty members caused by both the QPS and malpractice process
• Assess the desire to participate in a peer support program

Have you ever been named in a lawsuit?

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Did you experience any emotional distress because of the lawsuit?

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Do you think it would have been helpful to be assigned another faculty member who had been through the process to serve as a peer supporter during this time? (with the option to opt out)

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Results:
Initial survey of all EM faculty physicians (both adult and pediatric) was conducted in October 2021. There was a 66% response rate, and it was found that a majority of respondents had been sued, did experience emotional distress from the experience, and thought it would have been helpful to have an assigned peer supporter who had been through a lawsuit themselves.

Conclusions/Lessons Learned:
There is both need and a desire for peer support amongst faculty emergency physicians going through a lawsuit. The survey also found that QPS review was similarly common and stressful and there was a desire for peer support in this context as well.

Next Steps:
Since December 2021, we have trained 15 out of our 100 adult EM faculty members to serve as peer supporters. We have paired 12 people with peer supporters. Three opted out. The current acceptance rate is 75%.

The next step is to conduct a post-implementation survey of both peer supporters and those who were offered peer support to assess outcomes of the program and solicit ideas for improvement.
Problem Statement

Patients in the NeuroICU have impaired swallowing mechanisms leading to intractable sialorrhea. In our experience, these patients have aspiration pneumonia, mechanical ventilation, and longer ICU stays. They often have contraindications to medications used to decrease sialorrhea. We have intermittently administered botox injections to parotid glands to help.

Objective/Aim Statement

In patients admitted to the 2 South Neurointensive Care Unit over a 1 year period with acute primary neurologic injury and severe sialorrhea, we will standardize administration of onabotulinumtoxin A (Botox) to decrease frequency of suctioning and facilitate transfer out of the NICU.

Design/Methods

Observational, prospective

Inclusion Criteria

Age > 18
All primary neurologic diagnoses (which include but are not limited by acute ischemic stroke, hemorrhagic stroke, traumatic brain injury, or autoimmune encephalitis)

Intubated or not intubated
Have at least 8 suctioning events per shift for 6 consecutive 12 hour shifts (oral +/- endotracheal) OR 8 suction events for 2 shift + soaked pads and/or skin breakdown OR less 8 suctioning events + 4 changed soaked pads
Severe or profuse sialorrhea based off of the drooling frequency and severity scale (DFSS) for 24 hours.
Have an anticipated ICU stay of >/=5 days
Contraindication to glycopyrrolate, scopolamine patch or oral atropine drops as determined by primary team.

Failure of glycopyrrolate, scopolamine patch or oral atropine drops for 48 hours.

Results

1 patient has received botox; 1 patient prospective baseline:
-Nurses to alert screening team
-M-Thurs pts receive botox
-Fri-Sun pts are prospective controls

Conclusions/Lessons Learned

-Ongoing PDSA cycles
-Continual feedback to different teams to sustain engagement

Next Steps

-Administering botox injections by neurocritical care attendings and fellows
-Continue to screen patients and educate staff

Fig 1. PDSA cycles times and subsequent changes

Fig 2. Run chart of first patient after Botox

Fig 3. 2S Botox process map

Fig 4. Anatomy of parotid gland and injection points
PROBLEM
Fragmented care and miscommunication among healthcare professionals led to patient safety concerns, decreased patient satisfaction, and staff burnout. The success rate of In Vitro Fertilization (IVF) treatment depends on timely monitoring and smooth care transitions throughout the entire IVF process by multidisciplinary teams consisting of physicians, nurses, operating room technicians, embryologists, andrologists, and ancillary staff.

OBJECTIVE
The project aim is to have 100% compliance of the pre-op Patient Readiness Checklist (PRC) by May 2022. The PRC is administered by the charge nurse after the Pre-Op visit the day before surgery starting at 07:30 a.m. at the In Vitro Fertilization Center at NewYork-Presbyterian/Weill Cornell Medicine. The PRC includes surgical consent, H&P, medical orders (pre-op and post-op) for the day of the surgery, COVID test clearance, adult escort availability, and correct EPIC booking of the case (booked under correct surgeon). Missing components are addressed by the same charge nurse immediately via email, Tiger Connect communication system, in person, or a phone call.

METHOD
The PRC was developed in REDCap, an online platform to assist the charge nurse in making sure all aspects of patient readiness are completed the day before surgery. “Patient readiness” was defined as completion of surgical consent, H&P, COVID test clearance, medical orders, adult escort availability, and correct EPIC booking of the case (booked under correct surgeon). Missing components are addressed by the same charge nurse immediately via email, Tiger Connect communication system, in person, or a phone call.

398 EPIC charts were reviewed by the same charge nurse between January 24, 2022 and March 3, 2022 starting at 07:30 a.m. on the day of the Pre-Op Visit (the day prior to the procedure).

FINDINGS
• Of 398 charts reviewed, 109 (27%) were missing at least one element of the PRC.
• COVID test clearance (78%, 85/109) was the major contributor for incomplete PRC.
• Lack of adult escort availability after the surgery was the second major contributor (24%, 26/109).
• Medical orders which include pre-op and post-op phases of care were 100% complete.

DISCUSSION
Pre-op Patient Readiness Checklist helped identify areas leading to potential delays in IVF care. Checking patient charts the day before surgery gave an opportunity to address and correct any outstanding issues, prevented procedure delays or case cancellations, and allowed for a better workflow the day of the procedure.

Since absence of pre-op COVID testing was found to be the main contributor for an incomplete PRC, an emphasis was made by the team to address this component. Multiple meetings took place with leadership to identify the reasons for lack of COVID test clearance. There were several factors found and a plan was created to address them – patients would receive a COVID test 2-5 days before their scheduled procedure instead of the day before surgery.

To address the lack of an adult escort availability after surgery, we conducted an in-service for the nursing staff to learn about available paid escort services and flyers were provided with company information to patients as an alternative option. Additionally, we worked with the EPIC team to create an Adult Escort tab in the Pre-op Visit navigation window. This is now part of the workflow, which ensures that an escort is verified and documented.

CONCLUSIONS and NEXT STEPS
The pre-op Patient Readiness Checklist has been implemented as the standard patient screening process and is an ongoing effort to proactively identify problem areas to address them at the root cause.
Virtual Reality Visual Field Testing
Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium
Paul Petrakos DO MS, Anfei Li MD PhD, Nicholas Vassiliou, Jennifer Inhae Lee MD, Brock Daniels MD | May 25, 2022

Problem Statement
The measurement of visual field defects through standard automated perimetry (SAP) is the cornerstone of diagnosing and assessing ocular disorders. Unfortunately, patient and operator experience of visual field testing can be negative. Studies have identified visual field testing as the least preferred test used in glaucoma care from a patients’ perspective.

They are labor intensive, time consuming, and difficult to clean between patients. The gold standard Humphrey Visual Field (HVF) also has challenging logistical requirements due to the large equipment set and requirement of a dark-quiet room. Virtual reality (VR) has shown much promise in ophthalmic diagnostics – especially in terms of freedom of head movement and precise control over experimental settings, besides being portable.

Objective/Aim Statement

AIM 1: Comparison of HVF to Virtual Visual Field (VVF) in patients being evaluated for glaucoma.

AIM 2: To compare patient experience using the HVF vs. VVF using a standardized question survey across domains of clarity, focus, comfort, ease of access, overall experience, clinical relevance and patient preference.

Design/Methods
Multi-site, cross-sectional observational study comparing the conventional Humphrey Visual Field to the Virtual Field.

Inclusion criteria:
- 18 years of age or older
- Ability to understand informed consent form

Exclusion criteria:
- Ocular media opacities
- Inability to fixate gaze
- Neuromuscular disorders
- Pregnancy
- Systemic problems that may affect concentration
- Cochlear implant

Preliminary data
Still early in the project and have only recently started using the device. We are on our third iteration of the patient survey and only six patients have completed it.

<table>
<thead>
<tr>
<th>Clarity</th>
<th>Focus</th>
<th>Comfort</th>
<th>Ease of access</th>
<th>Overall experience</th>
<th>Clinical relevance</th>
<th>Patient preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefer VVF</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Prefer HVF</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1: Preliminary Survey Results

Based on our preliminary experience, patients slightly favor the virtual reality visual field. Testing results overall match their previous standard automated perimetry.

Challenges (Lessons Learned)
- Encountered significant delays obtaining device and approval for clinical use across multiple sites (Currently implementing only at Weill Cornell)
- Staffing shortage of technicians in clinic limiting the number of VVF we could perform in tandem with standard HVF (Patients are asked which they would prefer and plan to compare demographics for patients who prefer one over the other)
- Issues with patients filling out the survey incorrectly (Survey now moved to REDCap)

Next Steps
- Further data collection with aim of performing 50 VVF tests.
- Compare characteristics between patients who choose HVF vs. VVF.
- Future directions include expanded use of VVF in other clinical locations such as Neuro-Ophthalmology and at-home testing.
Problem Statement:
- Improved communication is associated with improved patient safety. Effects of interventions to improve communication between HCP and patients/families have NOT been extensively studied, particularly in the Pediatric Intensive Care Unit (PICU) setting.
- Providing patients/families with high quality healthcare in the language of their choice is fundamental component of patient-centered care in pediatric settings.

Project Goal:
- To develop a bundle to prevent safety events related to access to communication on family centered rounds in the PICU for non-English Speaking (NES) families.

AIM Statement:
- To increase the use of interpreter services for NES patients on rounds to 80% of the time by June 2022.

Study Design:
- Observational time series with planned sequential experimentation.
- Study Population: Patients admitted to the PICU at NYP/WCM who noted languages other than English as their primary language.
- Outcome Measure: Rate of NES safety rate.
- Process Measures: Rate of interpreter use on Rounds, Validation of interpreter use via Inpreteter Services.
- Balancing Measure: Timely completion of rounds.

Analysis:
- Run charts and P charts were used to display and analyze data. API rules were applied to detect special cause variation/signals of change.

Results
- Rate of NES patients on 6S 21% (Feb-May 2022).

Figure 2- Number of interpreter calls on 6S including baseline data and intervention, demonstrating upward trend.

Figure 3- Percentage of weekly interpreter use for NES on rounds- approaching goal of 80%.

Balancing Measure: no difference in timing of completion on rounds if interpreter was used or not.

Conclusions/Lessons Learned
- A bundle including education, checklists and reviewing safety events through a DEI lens can increase interpreter use for NES families.

Next Steps
- Transitioning daily checklist to interdisciplinary team.
- Continuing to gather data regarding safety events to evaluate for signals of change.

Acknowledgements- PICU fellows and faculty, PICU RNs and Drisdy Kee LCSW, Dr. Nena Osorio. And Dr. JC Cowden at Children’s Mercy-Kansas City for the use of the DEI checklist.
**Problem Statement**
- Breast Cancer is the number one cause of newly diagnosed cancers in U.S. women.
- At the end of 2019, the NYP-BMH Multidisciplinary Breast Cancer Program was established.
- In NYC, Brooklyn has the highest breast disparities in all boroughs.
- Early diagnosis and access to multidisciplinary breast cancer treatment improves outcomes.
- The Emergency Department (ED) at NYP-BMH annually codes over >100 breast-related visits.
- The ED volume of breast-related disease presents an opportunity to provide quality breast care access to patients in Brooklyn.
- Gaps remain in referral to our breast program.

**Objective/Aim Statement**
- To increase consultations to our multidisciplinary breast program by providing an avenue for improved referral for patients identified with breast disease in the Emergency Department by 20% over the next year.

**Design/Methods**
- A Longitudinal Interventional Study
  - Physician/APP/Resident targeted focus groups
  - Breast Referral Educational Sessions
  - Targeted Ad Campaign

**Results**
- Multi-targeted interventions have led to >20% increase in referrals from the ED to NYP-BMH breast program over the first quarter of the study.
- There has also been a >20% increase in patients with breast complaint seen in ED that seen in the breast center.

**Conclusions/Lessons Learned**
- Multi-targeted intervention has led to >20% increase in referrals from the ED to the breast center over the first quarter of the study.
- There has also been a >20% increase in patients with breast complaint seen in ED that seen in the breast center.

**Next Steps**
- Will continue to track referral and consultations over the next year.
- Developing an automated EPIC dashboard.
- Continued multifaceted education.
- Track time from ED visit HD#1 to Clinic visit for continued improved breast outcomes.

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**INCLUSION CRITERIA**
- Age >18
- Women & Men
- Any Breast Disease
- ED initial presentation
- No established breast surgeon

**EXCLUSION CRITERIA**
- <18 years old
- Established breast surgeon/medical oncologist
- Not interested in being referred

---

**Current Process vs. Ideal Process**
- TEAM
- PATIENT ACCESS
- PATIENT ACCESS
- ACCESS

**Primary Drivers**
- Patient identification

**Secondary Drivers**
- Patient Referrals
- Patient consults

**Specific Ideas to Test or Change Concepts**
- Practice patterns
- ER Physicians
- Breast Surgeons
- Patient Navigators (ER & MDC Breast)

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**AIM**
To increase consultation to our multidisciplinary breast program by providing an avenue of improved access for patients identified in the Emergency Department, 20% over the year.
Improving Accuracy and Efficiency of Regional Block Administration for Breast Surgery

Authors: Catalina Angel MD; Mike Yamakawa MD; Justin Chung MD; Vanessa Ng MD; Rebecca Ogunremi; Shao Ping Yu, MPH; Shelby Badani MD; Deirdre Kelleher MD

Department: Anesthesiology

1. Statement of the Problem

Pectoralis nerve (PECs) blocks for mastectomy procedures are associated with improved postoperative pain scores and reduced intra- and postoperative opioid requirements when compared to systemic analgesia or standard of care without PECs blocks1. At our institution, these blocks have been offered to some mastectomy patients as part of the postoperative analgesia plan. While some surgeons prefer to provide their own intraoperative block for analgesia, the performance of the block by the anesthesia regional block team can be requested from the surgeon prior to the case. Unfortunately, the electronic request for an anesthesia-administered block is not consistently accurate, including both day of surgery (DOS) block requests without previous electronic booking, as well as electronically booked blocks that are canceled perioperatively. Additionally, there is high variability in use of PECs blocks for mastectomy patients, often stemming from a perception that the block substantially delays the surgical start, which prevents the regional anesthesia team from standardizing the administration of PECs blocks to all patients booked for mastectomy. These concurrent problems result in inefficient use of regional anesthesia team resources and a potential failure in providing the highest quality care to patients undergoing mastectomy procedures.

2. Objective/Aim of the study

The project aims to improve accuracy of the block request process by 15% within 5 months. The objectives are to 1.) Increase the percentage of blocks performed that are appropriately requested in advance 2.) Determine the average time for block administration.

3. Project Design/Methods:

A review of the relevant literature and use of PECs blocks for breast procedures at peer institutions was performed. In collaboration with the surgical physician assistants (PAs), we created a value stream map of all the steps from office visit to DOS that take place before block administration (Figure 1). We identified the PAs as key stakeholders in ensuring blocks are requested appropriately (block confirmation accuracy only ~50% of cases). With this knowledge we made educational material explaining the booking process and reviewing the importance of accurate booking of blocks for both patient safety and surgical efficiency.

To determine the success of our intervention, we compared the accuracy of block booking from pre-intervention (August – November 2021) and post-intervention
(December 2021 – March 2022) for ambulatory adult patients undergoing simple mastectomy or mastectomy with reconstruction. We also analyzed the time needed to perform each block to help with future education of the surgeons and PAs. Of note, cases in December 2021 that occurred before the intervention were excluded from the dataset.

4. Results

Prior to our intervention, 75% of blocks performed (12 of 16) were booked in advance compared with 100% of blocks (12 of 12) after our intervention (Table 1). Blocks did not appear to substantially lengthen OR team before or after intervention, with average block time being 6 minutes pre-intervention and 5 minutes post-intervention. Additionally, approximately 90% of blocks in both groups were performed in less than 10 minutes.

5. Conclusions

Appropriate advanced booking of perioperative blocks improves efficiency and assists in providing optimal care for patients. The use of value stream mapping in collaboration with the surgical service allowed us to identify the booking process in the office as a main area for improvement. Use of educational intervention as well as the collaboration itself allowed us to improve from 75% proper booking to 100% proper booking. We now will focus on educating the surgeons on the efficacy of PECs blocks for mastectomy procedures, including the information that blocks usually take less than 10 minutes of OR time, to further increase the standardization of block use at this institution.
Improving Accuracy and Efficiency of PECS Block Administration for Breast Surgeries

2022 Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium, May 25, 2022

Residents: Catalina Angel MD, Mike Yamakawa MD, Fellows: Justin Chung MD, Vanessa Ng MD
QI Mentors: Rebecca Ogunremi B.S., Shao Ping Yu MPH, Faculty Mentors: Shelby Badani MD, Deirdre C. Kelleher MD

Problem Statement

Pectoralis nerve (PECs) blocks for mastectomy procedures are associated with improved post-operative pain scores and reduced intra- and post-operative opioid requirements when compared to systemic analgesia or standard of care without PECs blocks. At our institution, these blocks have been offered to some mastectomy patients as part of the post-operative analgesia plan. While some surgeons prefer to provide their own intra-operative local anesthetic for analgesia, the performance of the block by the anesthesia regional block team can be requested from the surgeon prior to the case. Unfortunately, the electronic request for an anesthesia-administered block is not consistently accurate, including both day of surgery (DOS) block requests without previous electronic booking, as well as electronically booked blocks that are canceled perioperatively. Additionally, there is high variability in use of PECs blocks for mastectomy patients, often stemming from a perception that the block substantially delays the surgical start, which prevents the regional anesthesia team from standardizing the administration of PECs blocks to all patients booked for mastectomy. These challenges result in inefficient use of regional anesthesia team resources and a potential failure in providing the highest quality care to patients undergoing mastectomy procedures.

Objective: The project aims to improve accuracy of the block request process by 15% within 5 months. The objectives were to

1) Increase the percentage of blocks performed that are appropriately requested in advance
2) Determine the average time for block administration

Methods:

A review of the relevant literature and use of PECs blocks for breast procedures at peer institutions was performed. In collaboration with the surgical physician assistants (PAs), we created a value stream map of all the steps from office visit to DOS that take place before block administration (Figure 1). This helped to identify the PAs as key stakeholders in ensuring that blocks are requested appropriately by confirming with the attending surgeon. With this knowledge, we made educational materials for surgical team members explaining the booking process and reviewing the importance of accurate booking of blocks for both patient safety and surgical efficiency.

To determine the efficacy of our intervention, we compared the accuracy of block booking from pre-intervention (August – November 2021) and post-intervention (December 2021 – March 2022) for ambulatory adult patients undergoing simple mastectomy or mastectomy with reconstruction. We also analyzed the time needed to perform each block to help with future education of the surgeons and PAs. Of note, cases in December 2021 that occurred before the intervention were excluded.

Figure 1: Pre-Intervention: Value Stream Mapping

<table>
<thead>
<tr>
<th>Step</th>
<th>Value Stream Mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office PA looks case</td>
<td>Pre-anesthesia eval, nursing eval, confirmation of surgical procedures, and block team member calls to patient</td>
</tr>
<tr>
<td>OR PA receives case</td>
<td>Confirmation of block by OR PA with patient</td>
</tr>
<tr>
<td>OR PA verifies patient is a candidate for a block</td>
<td>Pre-anesthesia eval, nursing eval, confirmation of surgical procedures, and block team member calls to patient</td>
</tr>
<tr>
<td>Confirmation of block by OR PA with patient</td>
<td>Black end, chart, procedure, exit</td>
</tr>
<tr>
<td>Confirmation of block by OR PA with patient</td>
<td>Patient arrives to OR</td>
</tr>
</tbody>
</table>

FTQ = First Time Quality: percent of time process step was accurate and complete the first time

Results

Prior to our intervention, 75% of blocks performed (12 of 16) were booked in advance compared with 100% of blocks (12 of 12) after our intervention (Table 1). Blocks did not appear to substantially lengthen OR team before or after intervention, with average block time being 6 minutes pre-intervention and 5 minutes post-intervention. Additionally, approximately 90% of blocks in both groups were performed in less than 10 minutes.

![Value Stream Mapping](https://example.com/value-stream-mapping.png)

Table 1: PEC Block Administration for Mastectomy Cases

<table>
<thead>
<tr>
<th></th>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block duration (median)</td>
<td>6 minutes</td>
<td>5 minutes</td>
</tr>
<tr>
<td>% Blocks performed &lt; 10 minutes</td>
<td>89.5%</td>
<td>93.5%</td>
</tr>
<tr>
<td>% Blocks performed that were booked</td>
<td>75%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Conclusions

- Appropriate advanced booking of peri-operative blocks improves efficiency and assists in providing optimal care for patients. The use of value stream mapping in collaboration with the surgical service allowed us to identify the booking process in the office as a main area for improvement. Use of an educational intervention as well as the collaboration itself allowed us to improve from 75% proper booking to 100% proper booking.

- As a future initiative to improve utilization of PEC blocks for appropriate patients, we will focus on educating the surgeons on the efficacy and efficiency of PEC blocks performed by the regional anesthesia service for mastectomy procedures.

Starting the Conversation: Early Initiation of Goals of Care (GOC) May Reduce Inpatient Mortality

Authors: Calvin Hwang, MD, Fernando Kawaii, MD, Caroline Keane, RN, Brigit Palathra, MD, Cynthia Pan, MD, Robert Crupi, MD

Department: NYP/Queens, Dept. of Medicine

1. Statement of the Problem

Reducing preventable patient deaths has long been at the center of patient safety efforts. But when patients nearing the end of life (EOL) are admitted, some well-intended providers may offer non-beneficial treatments that may hasten death or prolong the dying process, result in patient harms, create more suffering, and cause moral injury to families and providers. Non-beneficial care may also negatively affect hospital operations.

2. Objective/Aim of the study

NYP QPS goal #1 aims to reduce risk-adjusted inpatient mortality to <0.9. NYPQ DOM identified that an untimely goals of care (GOC) discussion was the largest mortality improvement opportunity. This project aimed to reduce in-hospital inpatient mortality by increasing discharges of hospice-appropriate patients to hospice.

3. Project Design/Methods

The study population included all adult patients admitted under the Medicine service at NYPQ. Primary metric was the mortality index. Process metrics included Palliative Care (PC) penetration rate, time to first PC consult and Hospice Conversion Rate. A balancing metric was IP Death after Hospice referral. PDSA methodology was used. In January 2021, we encouraged the voluntary use of the Hospice Quick Screen (HQS) featuring the "Surprise" question: “Would you be surprised if your patient died in the next 6 months?” An answer of "no" was supposed to prompt a GOC conversation. We found that this did not result in meaningful improvement. A second PDSA cycle was piloted in June 2021 aimed at "starting the conversation" within the initial 72-hrs of admission. This was performed by select hospitalists, PC physicians, trainees, and physician assistant champions. Immediate improvement of process metrics led to a hospital-wide third PDSA cycle in August 2021. All Medicine hospitalists, trainees, physician assistants and Case Managers were provided with a brief session on how to start a GOC conversation. Providers were instructed to consult PC if GOC discussions proved too challenging.

4. Results

The hospital mortality index continues to trend favorably. Process metrics such as PC penetration rate, ALOS admit-to-PC, and hospice conversion rate have begun to show consistent improvement in relation to internally set targets. IP death after hospice referral continues to trend below our historic rate of >20%.
5. Conclusions

A coordinated hospital-wide initiative for the early discussion of GOC may result in increased hospice discharges. During the 3rd cycle, our Palliative Care division and Case Management department experienced unanticipated staffing shortages. Despite this and other pandemic-related disruptions, our results remain positive. The workgroup has identified 2 potential improvement opportunities. First, despite our initial efforts, many staff can benefit from more communication skills training around mortality and GOC. Several of our leaders are currently spearheading a network-wide communication skills training program (GOComm). Second, provider feedback has highlighted the need to improve our Hospice DC process. Network-wide efforts have begun as well.
Starting the Conversation:
Early Initiation of Goals of Care (GOC) May Reduce Inpatient Mortality

Calvin Hwang, Fernando Kawai, Caroline Keane, Brigit Palathra, Cynthia Pan, Robert Crupi

New York Presbytarian/Queens

Problem Statement
Reducing preventable patient deaths has long been at the center of patient safety efforts. But when patients nearing the end of life (EOL) are admitted, some well-intended providers may offer non-beneficial treatments that may hasten death or prolong the dying process, result in patient harms, create more suffering, and cause moral injury to families and providers. Non-beneficial care may also negatively affect hospital operations.

Objective/Aim Statement
NYP QPS goal #1 aims to reduce risk-adjusted inpatient mortality to <0.9 (defined as # observed IP deaths/# expected IP deaths). Using a process-oriented standardized mortality review system, the NYPQ Dept. of Medicine identified that unlikely inpatient goals of care (GOC) discussions was associated with the highest number of potential improvement opportunities. We implemented a project to reduce in-hospital risk-adjusted inpatient mortality by increasing discharges of hospice-appropriate patients to hospice by initiating early GOC discussions (defined as within 72 hrs of admission).

Design/Methods
The study population included all adult patients admitted under the Medicine service at NYPQ. Pareto analysis of the Mortality Review System findings identified top opportunities to improve (OI). Delayed GOC discussion was the most common OI. Ishikawa analysis suggested 3 main underlying drivers: inconsistent provider recognition of patients nearing end-of-life, absence of provider expectations with initiating conversations about dying, and an inconsistent hospice evaluation & discharge process. Primary metric was the mortality index. Process metrics included Palliative Care (PC) penetration rate (% of hospice patients w/ PC consult) time to first PC consult (ALOS Admit-to-PC) and Hospice Conversion Rate. A balancing metric was IP Death after Hospice referral (defined as % expired after referral to hospice services but prior to disposition). PDSA methodology was used.

In January 2021, we encouraged the voluntary use of the Hospice Quick Screen to prompt all admitting providers to think about GOC. The HOS featured the "Surprise" question: "Would you be surprised if your patient died in the next 6 months?" An answer of "no" was supposed to prompt a GOC conversation. We found that this did not result in measurable improvement.

Results
The hospital mortality index continues to trend favorably despite recent hospitalization surges due to COVID variants. Process metrics such as PC penetration rate, ALOS admit-to-PC, and hospice conversion rate have also begun to show consistent improvement. A second PDSA cycle was piloted in June 2021 aimed at “starting the conversation” within the initial 72-hrs of admission. This was performed by select hospitalists, PC physicians, trainees, and physician assistant assistants. Immediate decreases in the ALOS prior to PC consult metric and positive subjective staff feedback prompted a hospital-wide expansion.

The third PDSA cycle was implemented in August 2021. All Medicine hospitalists, trainees, physician assistants and Case Managers were provided with a brief (30 min) inservice session on how to start a GOC conversation. Providers were instructed to consult PC if GOC discussions proved too challenging as long as patients/families were willing to continue the conversation. Case Managers were trained to use the Hospice Quick Screen criteria in daily multidisciplinary case manager rounds. We also actively engaged our 3rd-party hospice vendor to improve the hospice referral & evaluation process.

Conclusions/Lessons Learned
This initiative demonstrates that a coordinated hospital-wide initiative for the early discussion of GOC may result in increased hospice discharges. One potential benefit may be greater staff comfort with introducing GOC with patients and families as well as more familiarity with the hospice process. During the 3rd cycle, our Palliative Care division and Case Management department experienced unanticipated staffing shortages. Though this negatively impacted some of our metrics (PC penetration rate, ALOS admit-to-PC), our metrics continue to demonstrate positive improvements.

Our experience demonstrates that continuous quality improvement remains critically important especially as healthcare institutions recover from pandemic-related disruptions.

Next Steps
The workgroup has identified 2 potential improvement opportunities. First, despite our initial efforts, many staff can benefit from more communication skills training around mortality and GOC. Several of our local leaders are currently spearheading a network-wide communication skills training program (GOCComm). Second, provider feedback regarding the Hospice discharge process has highlighted the need to improve our Hospice discharge process. Network-wide efforts have begun as well.
MoMA Social Rx- Introduction to Watercolor Painting for People with Parkinson’s
definitions
Authors: Abby Andrew, LCSW; Natalie Hellmers, MSN, RN, ACNP-BC; Lara Schweller; Harini Sarva, MD
Department: Weill Cornell Parkinson’s Disease and Movement Disorders Institute

1. Statement of the Problem
This social prescription Introduction to Watercolor project was designed to target the gaps and barriers toward accessing social engagement and cognitive stimulation for patients with Parkinson’s Disease (PD) to prevent the detrimental effects associated with isolation. Patients with chronic neurodegenerative disorders like PD may experience anxiety, depression, cognitive changes, and other mental health issues that coincide with their condition. These symptoms can be exasperated by isolation and lack of social stimulation.

2. Objective/Aim of the study
This social prescription Introduction to Watercolor program aims to combat social isolation and the detrimental health effects associated with it by fostering meaningful connections amongst isolated older adults diagnosed with PD and providing social engagement and stimulation through looking at, talking about, and making art. The project utilizes a social prescription model which looks at health and wellness through a holistic lens that considers the importance of social connection and community.

3. Project Design/Methods
The project was designed in collaboration with the Community & Access Program team at The Museum of Modern Art (MoMA). This social prescription program uses art-based programming to combat social isolation amongst seniors. The program was adapted to accommodate the unique needs of the PD community and entailed a 6-week Introduction to Watercolor program that introduced participants to watercolor techniques as well as a variety of artworks in the MoMA’s collection.

4. Results
A total of 19 participants regularly attended each week (18 people with Parkinson’s and one care partner). Of the 9 participants that responded to the feedback survey, 67% felt an increase in motivation and sense of purpose after attending this program. An increase in overall sense of well-being (emotionally, physically and/or spiritually) was also reported.

5. Conclusions
Overall, participants reported a positive response to this program. Patients found the program accessible, organized, inspiring, and valuable for their needs thus supporting the beneficial role of these virtual social prescription programs.
Problem Statement
This social prescription Introduction to Watercolor project was designed to target the gaps and barriers toward accessing social engagement and cognitive stimulation for patients with Parkinson's Disease (PD) to prevent the detrimental effects associated with isolation. Patients with chronic neurodegenerative disorders like PD may experience anxiety, depression, cognitive changes, and other mental health issues that coincide with their condition. These symptoms can be exacerbated by isolation and lack of social stimulation. Due to the COVID-19 pandemic and mobility limitations, many of the patients receiving care at the Weill Cornell Medicine Parkinson’s Disease and Movement Disorders Institute have become increasingly isolated. With community centers and exercise programs closing, there was little opportunity for engagement and socialization.

Objective/Aim Statement
This social prescription Introduction to Watercolor program aims to combat social isolation and the detrimental health effects associated with it by fostering meaningful connections amongst isolated older adults diagnosed with PD and providing social engagement and stimulation through looking at, talking about, and making art. The project utilizes a social prescription model which looks at health and wellness through a holistic lens that considers the importance of social connection and community.

Design/Methods
The project was designed in collaboration with the Community & Access Program team at The Museum of Modern Art (MoMA). This social prescription program uses art-based programming to combat social isolation amongst seniors. The program was adapted to accommodate the unique needs of the PD community and entailed a 6-week Introduction to Watercolor program that introduced participants to watercolor techniques as well as a variety of artworks in the MoMA’s collection. The program was tailored to address barriers including the potential presence of tremor (ex. Art tools and equipment were adaptive and larger in size). Participants were provided with an art-making kit that included a sketchbook, encouraging them to continue to utilize art as an outlet in between sessions. When taking part in art making, participants were able to practice hand dexterity and benefit from cognitive stimulation while also connecting with others to decrease isolation. Upon conclusion of the program, participants were paired off to take part in a pen pal program to maintain these new connections.

Participant Quotes/ Artwork
"It was wonderful to participate in this program. Because each exercise was broken into easy pieces we were able to feel more successful with our work. It was great to see others enjoying the class and sharing their work. I can't thank you enough for this wonderful experience that really helped break the monotony of pills and bills." – Fourth level bulleted copy details

"Joy - I was doing something I’d never done before. I was learning. I was not being judged. It was fun to see what others had done. The music when on, was peaceful" – Fifth level

"I felt we developed a generous community.”

"I was quite interested in learning and taking a chance to see if I could create something artistic. Participating in the class was a joyful experience.”

"This was the first time I participated in a group of folks who share my Parkinson's diagnosis. The zoom format made it easier for me. I am perhaps a bit more open to joining another group like this than I was before I did this class. We'll see.”

Results
A total of 19 participants regularly attended each week (18 people with Parkinson’s and one care partner). Of the 9 participants that responded to the feedback survey, 67% felt an increase in motivation and sense of purpose after attending this program. An increase in overall sense of well-being (emotionally, physically and/or spiritually) was also reported. One patient reported that they liked “sharing art making and art seeing with people who, like me, have Parkinson’s. I felt very tender hearted towards us.” Almost half of participants reported feeling an increase in feeling connection to others during the program. This feedback supports the notion that bringing patients with PD together can foster connections that combat isolation. Another participant reported that they felt the program “developed a generous community.” One participant reported that this was the first time they participated in a group with others diagnosed with PD and it made them less reluctant to joining other social groups in the future. Notably, 78% of participants who responded to the feedback survey reported that they used their art making materials outside of the hour program each week. The majority also reported an overall increase in art making activity after the conclusion of the program which emphasizes how even a short term social prescription program can result in a long term increase in engagement and therapeutic activity. Overall, 89% of participants would highly recommend this program to others.

Conclusions/Lessons Learned
Overall, participants reported a positive response to this program. Patients found the program accessible, organized, inspiring, and valuable for their needs thus supporting the beneficial role of these virtual social prescription programs. In addition, many continued to utilize the sketchpad between sessions emphasizing the positive effect of the class, social interaction, and learning new skills. Multiple aspects of emotional wellbeing were improved through this interactive, engaging program. Future programs like this may increase access to peer support and a sense of community and the success of this program emphasizes the benefits of the social prescription model and the importance of socialization and engagement when it comes to overall wellbeing.

Next Steps
Continue to utilize the social prescription model with patients diagnosed with neurodegenerative disorders in order to improve quality of life and prevent isolation.
Telehealth access in a multi-lingual urogynecology patient population

**Authors:** Laura S. Kim, MD; Rosalyn Chan-Akeley, MD; Marco Velastegui; Andrea Guzman

**Department(s):** Weill Cornell Medicine / NYP-Queens Hospital – Dept of OB-GYN; The Lang Center for Research and Education

**Department:** Pediatrics

1. **Statement of the Problem**

   Telehealth access became an important way for patients to access care during the Covid-19 pandemic. However, this becomes challenging in a lower English proficiency (LEP) (55%) and digital elderly (50+ years old) urogynecology patient population. With EPIC-go-live, there seemed to be fewer connected televideo visits. Therefore, this QI project was to assess access via EPIC’s “20+ clicks” for login, and compare it with Doximity’s “4 clicks” (our prior telehealth platform).

2. **Objective/Aim of the study**

   The primary aim is to assess the proportion of scheduled televists, that are completed via the EPIC application (EPIC) and Doximity application (Doximity). The secondary aim is to look for predictors for an EPIC vs. Doximity televisit.

3. **Project Design/Methods**

   An initial PDSA cycle, revealed 76% of scheduled televists were completed via Doximity, in the LEP, digital elderly urogynecology population at NYPQueens. EPIC-go-live occurred in June ’21. This PDSA cycle included all scheduled televist visits from August 1 to December 31, 2021.

   EPIC is the default platform for televists. However, if patients did not connect, a text message is sent to initiate a Doximity platform, telehealth visit. Abstracted data included televist platform, age, language, need for login help, and zip code. Statistical analysis is conducted using SAS Studio Software. Descriptive statistics are used to summarize patient and visit data. Logistic regression is utilized for binary outcomes. Chi-square, and Fischer’s used for categorical variables.

4. **Results**

   93% (n=208) of the scheduled televists (n=224) were completed. Independent login on EPIC, occurred in 27% of scheduled televists with an average age (age) of 50 years old (yo), with 87% speaking English. 35% of EPIC visits (15% of scheduled visits) needed login help (age 68 yo, 36% English speaking). Then 34% of scheduled visits occurred via Doximity. Independent login via Doximity occurred for 24% of scheduled visits (age: 60yo, 67% speaking English). The remainder of Doximity visits needed login help (age 69 yo, 41% speak English). If unable to connect with either platform, phone visits (17% of
scheduled visits) performed with an age of 71 yo, 24% speaking English. Predictors for an independent login, EPIC visit include speaking English (OR 21.2, p = 0.0039, CI 2.665-169.9) and less likely if non-English speaking (OR 0.737, p =0.0074, CI 0.589-0.921) or older than 55 years (OR 0.174, p <0.0001, CI 0.089 –0.339).

5. **Conclusion**

In LEP and older patients, only a minority of telehealth visits are accessible via EPIC. Despite step-wise utilization of the televisit applications (EPIC, then Doximity), selecting out technology literate or English speaking patients, older (average 60yo) and LEP patients are able to independently login for Doximity visits. To improve health equity and access, minimizing barriers are important. Ease of use and language of application are such factors. A choice of televisit applications should be offered to improve access to care.

6. **Next Steps**

Despite perceived benefit of time and transportation costs, due to audibility of translation services and need for login help, are patient satisfied with televisits?
Doximity’s “4 clicks” to start a video visit, improves telehealth access and Health Equity for older (average age 60) and Lower English Proficiency (LEP) patients compared to EPIC’s “20+ clicks.”

### Predictors for an independently logged in televisit visit in EPIC

<table>
<thead>
<tr>
<th>Factor</th>
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<td>Less likely Non-English language</td>
<td>0.737</td>
<td>0.0074</td>
<td>0.589-0.921</td>
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<tr>
<td>Age &gt;55 yrs old</td>
<td>0.174</td>
<td>&lt;0.0001</td>
<td>0.089-0.339</td>
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<td>More likely English Speaking</td>
<td>21.2</td>
<td>0.0039</td>
<td>2.665-169.9</td>
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### Problem:
- With EPIC Go-Live, fewer patients seemed to access televisits via EPIC’s MyChart for televisits.

### Objective/Aim:
- Primary aim: Assess the proportion of scheduled televisits that are completed via EPIC and Doximity.
- Secondary aim: Look for predictors for an EPIC vs. Doximity televisit.

### Design/Methods:
- An initial PDSA (Plan-Do-Study-Act) cycle revealed 76% of scheduled televisits were completed via Doximity PRIOR to EPIC Go-Live in the LEP, digital elderly urogynecology population at NYPQueens.
- EPIC Go-Live occurred in June ’21. This PDSA cycle included all scheduled televisits from August 1 to December 31, 2021. EPIC is the default platform for all televisits. However, if patients do not connect, a text message is sent to initiate a Doximity telehealth visit.
- Abstracted data include the televisit platform, age, language, login help, and zip code. Statistical analysis is conducted using SAS Studio Software. Descriptive statistics are used to summarize patient and visit data. Logistic regression is utilized for binary outcomes. Chi-square and Fischer’s are used for categorical variables.

### RESULTS:

#### AGE (Bars) and LEP by Televisit Platform

- **EPIC**: 75% of visits, 60% English-speaking.
- **Doximity**: 27% of visits, 24% English-speaking.
- **Phone**: 15% of visits, 27% English-speaking.
- **No-Show**: 17% of visits, 15% English-speaking.

### % of Scheduled visits by Televisit Platform

- **EPIC No Help**: 7%
- **EPIC help**: 27%
- **Doximity no help**: 10%
- **Doximity help**: 24%
- **Phone**: 15%
- **No-Show**: 17%

### Conclusions/Lessons Learned:
- In LEP and older patients, only a minority of televisit visits are accessible via EPIC.
- Step-wise utilization of the televisit applications (EPIC first and if not connected, then Doximity), selected out technology literate and English speaking patients. Despite this, older (average 60) and LEP patients are able to independently login for Doximity visits.
- To improve health equity and access, minimizing barriers are important. Ease of use and language of application are such factors.
- A choice of televisit applications should be offered for access to care.

### Next Steps:
- Is there higher patient satisfaction for televisits versus office visits (i.e. medication and results review, counseling)?
- Audibility of translational services and need for help with televisit login may offset perceived benefit of time and transportation cost.
Comparison of Intraoperative Breast Axillary Sentinel Node Frozen Section Diagnosis Concordance Between Digital Pathology and Glass Slides

Authors: Diana Berman, MD; Theresa Scognamiglio, MD

Department: Pathology and Laboratory Medicine

1. Statement of the Problem

   Intraoperative frozen sections are an important component of patient care. They give surgeons and clinical teams information quickly about diagnosis, margin status, and cancer staging that can be used to influence decisions during the procedure. There are two gross rooms where frozen sections are performed. There is a centrally located main operating room (OR) in proximity to our main gross room and a more distant outpatient OR at the David H. Koch (DHK) Center with a second gross room. To address the distance between the two locations, the Aperio LV1 desktop slide scanner was implemented to quickly scan the slides prepared from the frozen sections by the Pathologists’ Assistant (PA) at the DHK gross room to be reviewed by the pathology resident and attending through secure remote access in the main gross room.

2. Objective/Aim of the Study

   The purpose of this investigation was to compare the concordance of breast axillary sentinel lymph node frozen sections with permanent controls using digital pathology versus glass slides.

3. Project Designs/Methods

   The investigation was done as a retrospective review of frozen sections performed from January 2021 through December 2021. The data was organized by location and frozen sections done on breast axillary sentinel lymph nodes, the most common specimen sent for frozen at DHK, were identified. The frozen section diagnosis was compared with the final diagnosis, concordance was assessed, and a Fisher’s exact test was performed to determine the statistical significance of the findings.

4. Results

   There were 2724 specimen parts frozen in the main gross room with a total of 152 (6%) breast axillary sentinel lymph nodes. At the DHK gross room, there were 93 specimen parts frozen with a total of 53 (57%) breast axillary sentinel lymph nodes. Based on the frozen and final diagnoses listed in Table 1, we found 91% concordance in the main gross room and 94% concordance in the DHK gross room (Fisher’s Exact p-value 0.7665). Upon further evaluation of the discrepancies we determined that in the main gross room, three were due to interpretation error, seven were due to sampling error, and three were due to another or unknown discrepancy. In the DHK gross room, two were due to sampling error and one was unknown and none were interpretation errors. We also evaluated turnaround time (see Figure 1) and found that the mean turnaround time was
29.9 minutes in the main gross room and 44 minutes in the DHK gross room (p-value 1.151e-05).

5. Conclusions

There is no statistically significant difference in the concordance of frozen and final diagnoses read in the main gross room by glass slides and at DHK through digital pathology. However, there is a statistically significant difference in the turnaround time which can be attributed to multiple factors including that the DHK gross room is staffed by a PA and only has one cryostat while the main gross room is staffed by a resident with other residents nearby to assist and has three cryostats. These findings are consistent with those seen in similar studies. Further studies should be done to compare concordance of frozen sections done in the main gross room and read by glass slides and those read remotely by an on-call attending via the Aperio slide scanner in the main gross room.
Problem Statement: Resident comfort and preparedness for their rotation in the pediatric intensive care unit (PICU) is essential for them to deliver high quality care to critically ill children.

Objective/Aim Statement: To improve pediatric resident self-reported preparedness to 80% for their PICU rotation via a novel orientation curriculum by December 2021.

Primary outcome: Resident comfort after participating in the new orientation curriculum

Process measures: Percentage of residents participating in the new orientation curriculum and resident self-reported preparedness via surveys

Results: We found that residents felt less nervous about the rotation. Feedback from the post orientation survey suggested including high-yield PICU basics into the orientation and to change the timing, informing iterations of our future PDSA cycles.

Conclusions/Lessons Learned: Pediatric resident comfort can be improved via group interactive session at the beginning of the year and via monthly fellow-led orientation virtual sessions.

Next Steps: Moving forward, we hope to augment the orientation process with hands on, fellow-led simulation to potentially improve patient outcomes while increasing the skillsets of our pediatric residents.

View our orientation slides!
Management of Infants at Risk for Early Onset Sepsis

Authors: Colleen M. Springarn, MD; Erin K. Kelly, MD; Abieyuwa Iyare, MD; Jin-Young Han, MD, Ph.D; Jennifer I. DiPace, MD

Department: Pediatrics

1. Statement of the Problem

Neonatal early onset sepsis (EOS) is a rare but potentially life-threatening condition with a mortality rate of 3-4% of affected infants. Guidelines for the evaluation and management of infants at risk for sepsis have historically erred on the side treating clinically-well, at-risk newborns with empiric antibiotics. After the introduction of intrapartum antibiotic prophylaxis, the EOS rate declined to 0.5 per 1000 live births. However, the clinical algorithm in place at our institution resulted in the antibiotic treatment of 3-4% of healthy late pre-term and term newborns with a sepsis risk factor in 2020. Multiple studies show an association between early antibiotic exposure and disease in childhood (i.e. obesity, wheezing). Research has demonstrated that the antibiotic treatment rate for at-risk, healthy newborns could be safely reduced through the use of a multivariate risk assessment, otherwise known as the Kaiser EOS calculator.

2. Objective/Aim of the study

Through the use of a multivariate risk assessment tool, we aim to decrease antimicrobial usage per 1000 days in the well appearing newborn ≥ 36 weeks gestation by 50% by December 2021.

3. Design/Methods

This quality improvement (QI) initiative took place in a single center Level 2 nursery in an urban academic center, utilizing the Model for Improvement framework and a time series design. An interdisciplinary team created a key-driver diagram and baseline data on antibiotic usage rates in newborns admitted to the Level 2 nursery was collected. The intervention consisted of the application of the sepsis risk calculator and assignment of a sepsis risk score (SRS) to all infants. Clinical management was based on the SRS and supported by a newly-generated clinical practice guideline. The primary outcome measure was use of antibiotics in clinically-well newborns ≥ 36 weeks gestation in the first 24 hours of life, measured by antimicrobial usage per 1000 days in this population. A second outcome measure was percentage of newborns who received a sepsis evaluation with a CBC upon admission. Monthly data was collected; data were summarized and analyzed using run charts.

4. Results

From December 2020 through May 2021 the antibiotic usage per 1000 days was 776. Subsequent to institution wide implementation, the antibiotic usage per 1000 days was 154, an 80% reduction. Prior to initiation, 25% of infants underwent sepsis evaluation
with a CBC. This rate decreased to 6% upon SRS incorporation, significantly reducing phlebotomy exposure. Last, the rate of blood cultures, our balancing measure, did increase but only by 2-3% which is likely an acceptable amount. The rate of newborn readmission to our institution was tracked and no cases of missed early onset sepsis were identified.

5. Conclusion

Through the use of a multivariate risk assessment tool that allows estimation of an individual infant’s risk of EOS, we were able to successfully reduce the percentage of infants exposed to empiric antibiotics and phlebotomy without apparent adverse effects.
Management of Infants at Risk for Early Onset Sepsis
2022 Annual Weill Cornell Medicine Quality Improvement and Patient Safety Poster Symposium

Spingarn, Colleen M.; Kelly, Erin K.; Iyare, Abiye; Han, Jin-Young; DiPace, Jennifer I. | May 25th, 2022

Problem Statement
Neonatal early onset sepsis (EOS) is a rare but potentially life-threatening condition with a mortality rate of 3-4% of affected infants. Guidelines for the evaluation and management of infants at risk for sepsis have historically erred on the side treating clinically-well, at-risk newborns with empiric antibiotics. After the introduction of intrapartum antibiotic prophylaxis, the EOS rate declined to 0.5 per 1000 live births. However, the clinical algorithm in place at our institution, endorsed by the Centers for Disease Control, resulted in the antibiotic treatment of 3-4% of healthy late pre-term and term newborns in 2020. Early antibiotic use is associated with a 4-fold increase in late initiation of breastfeeding and 2-fold increase in non-medically indicated formula supplementation. Multiple studies show an association between early antibiotic exposure and disease in childhood (i.e., obesity, disruption in the gut microbiome, wheezing). In addition, evaluation and treatment of these healthy infants results in newborn separation from parents and exposure to phlebotomy within the first 24 hours of life. Research from other institutions has demonstrated that the antibiotic treatment rate for at-risk, healthy newborns could be safely reduced through the use of a multivariate risk assessment, otherwise known as the Kaiser EOS calculator.

Objective/Aim Statement
Through the use of a multivariate risk assessment tool, we aim to decrease antimicrobial usage per 1000 days present in the well appearing newborn ≥ 36 weeks gestation by 50% by December 2021.

Key Driver Diagram

Design/Methods
This quality improvement (QI) initiative took place in a single center Level 2 nursery in an urban academic center, utilizing the Model for Improvement framework and a time series design. An interdisciplinary team conducted a key-driver diagram and collected baseline data on antibiotic usage rates. The intervention consisted of the application of the sepsis risk calculator and an assignment of a sepsis risk score (SRS) to all infants. The management of the infants was based on the SRS and supported by a new clinical practice guideline. The primary outcome measure was use of antibiotics in clinically-well newborns ≥ 36 weeks gestation in the first 24 hours of life. A secondary outcome measure was percentage of newborns who received a sepsis evaluation with a CBC upon admission. A balancing measure was the number of infants who had a blood culture drawn in the first 24 hours of life. Monthly data was collected; data were summarized and analyzed using run charts.

Results
From December 2020 through May 2021 the antibiotic usage per 1000 days was 776. Subsequent to institution wide implementation, the antibiotic usage per 1000 days was 154, an 80% reduction. Prior to initiation, 25% of infants underwent sepsis evaluation with a CBC, a laboratory test that does not reliably predict sepsis in this patient population. This rate decreased to 6% upon SRS incorporation, significantly reducing phlebotomy exposure to an unnecessary test as a result. Last, the rate of blood cultures, our balancing measure, did increase but only by 2-3%, which is likely an acceptable amount. The rate of newborn readmission to our institution was tracked and no cases of missed early onset sepsis were identified.

Conclusions
Through the use of a multivariate risk assessment tool that allows estimation of an individual infant’s risk of EOS, we were able to successfully reduce the percentage of infants exposed to empiric antibiotics and phlebotomy without apparent adverse effects.
Impacts of Travel Time on Appointment Frequency and No Show Rates At A NYC Free Clinic

Authors: Gabrielle Ramirez; Xiaohan Ying; Hyejin Kim; Ashita Batavia, MD; Pamela Charney, MD

Department: Weill Cornell Community Clinic

1. Statement of the Problem

Consistent preventative and follow up visits are vital in ensuring continuity of care, but it is unknown how travel time affects care utilization. The Weill Cornell Community Clinic (WCCC) is a student-run free clinic that provides longitudinal primary care to uninsured patients from all 5 boroughs of New York City. The clinic is partnering with a ride hailing organization (RideHealth) to provide car service for its patients to further reduce challenges in accessing care. In order to better assess patients’ commutes and need for transportation assistance services, this study examines patients’ travel time and its impacts on in person visit frequency and no show rates.

2. Project Objectives

- To better understand challenges face by patients seen at a free clinic and explore possible solutions to address these challenges
- To evaluate the impact of travel time on free clinic utilization and attendance rates

3. Project Methods

All patients seen at the WCCC between January 01, 2019 and December 31, 2019 were retrospectively included. Frequency of visits, missed appointments, and addresses were extracted from clinic records. Travel time via public transportation and car between patients’ homes and WCCC were estimated using Google Maps under the assumption of 6:00 pm arrival on a non-holiday Monday, in line with operating time for WCCC. Univariable analyses were performed using t-test for continuous variables.

4. Results

110 unique patients were seen in 2019, with a total of 404 appointments scheduled and 74 appointments missed. Average travel times were 32.2 minutes (SD 16.7, range: 3 - 72.5) by car and 49.3 minutes (SD 11.1, range: 6 - 134) by public transportation. 89 patients had travel time of more than 30 minutes by public transportation, with an average commute of 57 minutes. However, their average commute is reduced to 37 minutes via car. Compared to patients with shorter commutes (≤ 30 minutes), those with longer commutes (> 30 minutes) had a similar number of total scheduled appointments (3.8 vs 3.1, p = 0.15), but a higher rate of missed appointments (20.0% vs 9.5%, p = 0.005).
5. Conclusions

Many of WCCC’s patients face various challenges while seeking care, including the burden of commuting in NYC. Patients who live further away from the clinic are found to be more likely to miss appointments and thus delay their care. Further analysis will be performed after partnering with RideHealth to better understand the impact of commute time on clinic utilization and visit attendance rates. For uninsured patients facing the additional burden of a long commute, transportation assistance services may help improve clinic no show rates for in person visits.
Improving Shingles Vaccination Rate at a Family Medicine Clinic in Washington Heights

Authors: Jenny Tobat, MD; David Killeen, MD; Amy Sun, MD; Megha Srivastava, MD; Roxanne Ko, MD; Carla Anderson, MD

Department: NYP/CUMC Family Medicine Residency Program

1. Statement of the Problem

About 1 in 3 persons in the US will develop shingles in their lifetime. About 1-4% of people will be hospitalized for complications. The shingles vaccine is 90% effective at preventing shingles and is available for patients 50+ years old. However, the vaccine is available only under Medicare Part D, so many clinics are unable to administer the vaccine due to financial limitations, and patients must go to pharmacies to receive the vaccine. At Farrell Family Medicine Clinic in Washington Heights, which serves an underserved population insured with Medicaid and Medicare, only 2.2% of patients who qualified for the shingles vaccine and were seen at the clinic in September 2021 were fully vaccinated.

2. Objective/Aim of the study

To increase the percentage of patients 50 years or older who have visits at Farrell in the last month and are fully vaccinated with shingrix from 2.2% to 5%

3. Project Design/Methods

Fishbone diagram and process charts were created to understand the barriers and workflow to patients getting the shingles vaccine. Our team also performed stakeholder interviews with providers, nurses, clinic pharmacist, and community pharmacists. Based on this background information, we created a flyer in both English and Spanish that reviewed what shingles is, how the vaccine is useful, and which nearby pharmacies provide the vaccine. We consulted with a health literacy expert to ensure that the language was easy to read and understand. The flyers were distributed to all exam rooms and providers were notified via email and all staff meetings about them and how to use them.

4. Results

Our monthly data collection plan will be to look back at the patients over 50 years old who had a visit at Farrell the past month and determine how many patients received both shots of the shingles vaccine. We expect a lag in the data given the time it takes for patients to visit a pharmacy after being told about the vaccine, as well as the vaccine being a two-dose series separated by 2-6 months.

5. Conclusion

Availability of the shingles vaccine to under-served populations remains limited due to insurance barriers, but patient education is a vital step in improving access to preventative care. We hope that with continued advocacy on a national level, coverage of this and other vital vaccinations can be expanded at clinics serving Medicaid and Medicare patients.
Improving shingles vaccination rate at a family medicine clinic in Washington Heights
Drs. Jenny Tobat, David Killeen, Amy Sun, Megha Srivastava, Carla Anderson, Roxanne Ko
NYP/CUMC Family Medicine Residency Program

BACKGROUND
About 1 in 3 persons in the US will develop shingles in their lifetime. About 1-4% of people will be hospitalized for complications.

The shingles vaccine is 90% effective at preventing shingles, and is available for patients 50+ years old. However, the vaccine is available only under Medicare Part D. Many clinics, especially those that care for an underserved population, do not have the vaccine available on site. Patients must go to a pharmacy that has the shingles vaccine available.

Farrell Health Center is a family medicine resident clinic that serves a large Medicaid population in Washington Heights. The surrounding community pharmacies do not all provide the vaccine.

As of September 2021, only 2.2% of patients who qualified for the shingles vaccine and were seen at the clinic that month were fully vaccinated.

SMART AIM
To increase the percentage of patients 50yo or older who have visits at Farrell in the last month and are fully vaccinated with shingrix from 2.2% to 5%

METHODS
Fishbone diagram and process charts were created to understand the barriers and workflow to patients getting the shingles vaccine.

Our team also performed stakeholder interviews with providers, nurses, clinic pharmacist, and community pharmacists. Highlights include:
- Many providers mention the shingles vaccine as part of health care maintenance but simply send a prescription to the patient's pharmacy.
- Providers who do not mention the vaccine indicate difficulties coordinating how to get it as a barrier.
- Community pharmacists that provide the vaccine state patients do not need a prescription to receive it. Numbers have been lower since the COVID pandemic.

INTERVENTION
Our team created a flyer in English and Spanish that reviewed the shingles, the vaccine, and nearby pharmacies that provided the vaccine. We consulted with a health literacy expert to ensure that the language was easy to read and understand. The flyers were distributed to all exam rooms and providers were notified via email and all staff meetings about them and how to use them.

DATA COLLECTION
Our monthly data collection plan will be to look back at the patients over 50 years old who had a visit at Farrell the past month and determine how many patients received both shots of the shingles vaccine. We expect a lag in the data given the time it takes for patients to visit a pharmacy after being told about the vaccine.

FUTURE WORK
Address challenges and barriers for interdisciplinary involvement.
Outreach intervention by pharmacist students or medical students.
Working with leadership to get vaccine billed under Part D.

ACKNOWLEDGEMENTS
Thank you to Center for Family and Community Medicine;
Thank you to Dr. Urmi Desai, Dr. Joanne Dempster, Dr. Daniela Diaz

Our team created a flyer in English and Spanish that reviewed the shingles, the vaccine, and nearby pharmacies that provided the vaccine.

We consulted with a health literacy expert to ensure that the language was easy to read and understand. The flyers were distributed to all exam rooms and providers were notified via email and all staff meetings about them and how to use them.
Increasing Healthcare Proxy Documentation in an Outpatient Geriatric Medicine Practice

Authors: Emily Coskun, MD; Kristina Fernandez, MD; Eliana Geller, DO; Shiran Porat, MD; Kelly Cummings, MD

Department: Weill Department of Medicine, Division of Geriatrics and Palliative Medicine

1. Statement of the Problem

Appointment of a healthcare agent (HCA) and subsequent completion of healthcare proxy (HCP) documentation is an integral form of advance care planning (ACP).1 Conversations about advance care planning prompt patients to have discussions about their wishes with their chosen agent.2 A HCA is especially important in patients without a surrogate, or with multiple surrogates (ie. multiple adult children) who may not know or make decisions based on the patient’s wishes. Initiatives using the Electronic Health Record (EHR) have led to improved rates of advance care planning documentation.3 Our aim is to increase healthcare proxy documentation rates for patients in a geriatric medicine practice by 20% by July, 1st 2022.

2. Project Design/Methods

We interviewed key stakeholders (doctors, nurse practitioners, nurses, and other staff) to understand barriers to HCP documentation in the EHR. We also reviewed the current EHR process to understand the steps involved in documenting HCP. A HCP form must be printed, completed with a witness, scanned into media, and linked to the ACP tab to become active. Baseline data was collected via manual chart review on 60 patients seen in our clinic between September 1 and November 30 of 2021. Our first intervention consisted of education during the weekly faculty meeting explaining how to scan and activate HCP documentation in the EMR. For our second intervention, we placed blank HCP forms and a HCP job aid (Figure 1) in each patient exam room. We have been collecting data on 5 patients per week post-intervention. Outcome measures collected are: HCP documented in notes, HCP form completed and scanned, and HCA active on sidebar.

3. Results

Baseline data showed that HCP was documented in a note in 50% of patients, HCP was scanned for 48% of patients, and HCA was active on the sidebar for only 8% of patients. After our second intervention of placing blank HCP forms and a job aid in the exam rooms, there was improvement in all three observed outcomes (Figure 2).

4. Conclusion

Rates of baseline HCP documentation, scanned HCP forms and activated HCA in the EHR were low, and all three increased after our second intervention of placing blank HCP forms and job aid in exam rooms. While HCP documentation alone is important, scanning and activating in the EHR improves visibility of the ACP so it can be more readily accessed during transitions of care or when urgent decisions are needed. Future interventions include continued education of providers to document HCP, altering the geriatric practice’s initial visit template to include HCP documentation, and creating signs to place in the waiting areas to encourage patients to enact a HCP.
Figure 1: Job aid. Demonstrates how to upload a HCP form and activate a HCA in the sidebar on the Epic EHR.

Figure 2: Outcome Measures. Percent of HCP documented in note, HCP forms scanned, and HCA active on sidebar.
References


Increasing Healthcare Proxy Documentation in an Outpatient Geriatric Medicine Practice

Emily Coskun¹, Kristina Fernandez, Eliana Geller, Shiran Porat, and Kelly Cummings

¹Division of Geriatrics and Palliative Medicine; Weill Cornell Medicine, New York, NY, USA; ebc9006@nyp.org

Background

- Appointment of a healthcare agent (HCA) and subsequent completion of healthcare proxy (HCP) documentation is an integral form of advance care planning.¹
- Conversations about advance care planning prompt patients to have discussions about their wishes with their chosen HCA.²
- Initiatives using Electronic Health Record (EHR) have led to improved rates of advance care planning documentation.³

Aim Statement

- We aim to increase healthcare proxy documentation rates for patients at the geriatric medicine practice by 20% by July 1st, 2022.

Methods

- Interviewed stakeholders to understand attitudes and knowledge about HCP documentation in EHR. Created fishbone diagram. (Figure 1)
- Reviewed EHR process and interviewed stakeholders to understand the steps involved in documenting HCP. Created process map. (Figure 2)
- Collected baseline data via manual chart review on 60 patients who had visits at the geriatric medicine practice and then data on 5 patients per week post-intervention.
- Implemented first intervention of educational presentation during weekly faculty meeting explaining how to scan and activate HCP in the EMR.
- Implemented second intervention of putting blank HCP forms and HCP Job Aid (Figure 3) in each patient exam room.

Results

- Baseline HCP documentation, scanned HCP forms and activated HCA in the EHR were low.
- Interventions were implemented aiming to increase completion of the three outcome measure.
- Data is currently being collected post-intervention and will be plotted on a run chart.

Outcome Measures

- HCP documented in notes
- HCP form completed and scanned
- HCA active on sidebar

Figure 1: Fishbone diagram: Stakeholders included providers, NPs, and other clinic staff.
Figure 2: Process Map: A HCP form must be printed, completed with a witness, scanned into media, and linked to the ACP (advance care planning) tab to become active.
Figure 3: Job aid: Demonstrates how to upload a HCP form and activate a HCA in the sidebar on the Epic EHR.

Conclusion and Next Steps

- Baseline data showed that HCP was documented in a note in 37% of patients, HCP was scanned for 30% of patients, and HCA was active on the sidebar for only 1.6% of patients.
- Interventions were implemented aiming to increase completion of the three outcome measure.
- Data is currently being collected post-intervention and will be plotted on a run chart.

References

Improving Rates of Pneumococcal Vaccination in Pediatric Rheumatology Patients with Systemic Lupus Erythematosus at Hospital for Special Surgery

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1. Statement of the Problem

Patients with Systemic Lupus Erythematosus (SLE) are at significantly increased risk for invasive pneumococcal infection (13-26x) compared to the general population, with infections occurring at younger ages and leading to increased need for intensive care. Pneumococcal vaccination is safe in patients with SLE and does not show reduced immunogenicity. Pre-visit planning in the pediatric rheumatology clinic setting has been shown to improve rates of pneumococcal vaccination among patients with childhood onset SLE (cSLE). Despite these findings, patients with cSLE are often not up to date with recommended pneumococcal vaccination.

2. Objective/Aim of the study

The objective of this study was to increase the percentage of patients with cSLE seen in our pediatric rheumatology clinic who are up to date with recommended pneumococcal vaccination from 6% to greater than 30% in a 6-month period.

3. Project Design/Methods

Baseline pneumococcal vaccination rates were obtained via retrospective review of all cSLE encounters for the 3 months prior to the project start date. Patients were defined as “up to date” with pneumococcal vaccination if they were not eligible to receive any additional pneumococcal vaccine doses by the end of each encounter. PDSA methodology was used. Interventions included educational sessions with the multidisciplinary team, use of a published pneumococcal vaccination algorithm, pre-visit planning, and weekly email reminders to providers. A process measure of successful vaccination execution (proportion of encounters that vaccine was given out of all encounters where patient was eligible for vaccine) was also followed.

4. Results

Our goal of 30% of cSLE patients being up to date with pneumococcal vaccinations was numerically surpassed after 3 months, reaching 83% by month 6. Each cycle of interventions led to numerically improved vaccination rates, which trended consistently upward throughout the study period. The process measure of successful vaccination
execution closely mirrored the trend of our primary outcome (percentage of cSLE patients up to date with pneumococcal vaccination).

5. Conclusions

This project demonstrates that prior published algorithms and relatively simple PDSA cycles lead to reproducible improvement in pneumococcal vaccination rates in the high risk cSLE population.
INTRODUCTION

- Patients with Systemic Lupus Erythematosus (SLE) are at significantly increased risk for invasive pneumococcal infection (13-28%) compared to the general population, with infections occurring at younger ages and leading to increased need for intensive care. [1,2]
- Pneumococcal vaccination is safe in patients with SLE and does not show reduced immunogenicity. [3]
- Pre-visit planning in the pediatric rheumatology clinic setting has been shown to improve rates of pneumococcal vaccination among patients with childhood onset SLE (cSLE). [4]

OBJECTIVES

- To initiate pneumococcal vaccination in our pediatric rheumatology clinic, starting with the cSLE population
- To work with a multidisciplinary care team (MDs, RNs, MAs, nurse managers, pharmacists) to implement a quality improvement (QI) initiative focused on vaccination and pre-visit planning

METHODS

- Baseline rate of cSLE patients up to date with pneumococcal vaccinations was obtained via retrospective review of all cSLE encounters for 3 months (May-June 2021) prior to the project start date
- Project dates: August 1, 2021 to February 1, 2022
- Patients were defined as “up to date” with pneumococcal vaccinations if they were eligible for vaccine and had received each dose by the end of each encounter
- Pre-visit planning in the pediatric rheumatology clinic setting has been shown to improve rates of pneumococcal vaccination among patients with childhood onset SLE (cSLE). [4]

INTERVENTIONS

- Baseline rate of cSLE patients up to date with pneumococcal vaccinations was 6% in the 3 month period prior to our project start date
- Although there were too few data points to clearly identify a 6 point trend, following our initial interventions, there was a 5 point trend toward increasing percentage of cSLE patients who were up to date with pneumococcal vaccination
- Our goal of 30% of cSLE patients being up to date with pneumococcal vaccinations was numerically surpassed after 3 months, reaching 33% by month 6
- The process measure of successful vaccination execution closely mirrored the trend of our primary outcome (% of cSLE patients up to date with pneumococcal vaccination)

OUTCOMES

- The mean baseline rate of cSLE patients seen in our clinic with up to date pneumococcal vaccination status per CDC recommendations was 6% in the 3 month period prior to our project start date
- Although there were too few data points to clearly identify a 6 point trend, following our initial interventions, there was a 5 point trend toward increasing percentage of cSLE patients who were up to date with pneumococcal vaccination
- Our goal of 30% of cSLE patients being up to date with pneumococcal vaccinations was numerically surpassed after 3 months, reaching 33% by month 6
- The process measure of successful vaccination execution closely mirrored the trend of our primary outcome (% of cSLE patients up to date with pneumococcal vaccination)

CONCLUSIONS

- We increased the percentage of pediatric patients under the age of 21 with cSLE who are up to date with appropriate pneumococcal vaccination from 6% to 33% in 6 months.
- The SMART aim was not only achieved, but exceeded with this QI project
- This project demonstrates that prior published [4] algorithms and relatively simple PDSA cycles lead to reproducible improvement in pneumococcal vaccination in the high risk cSLE population
- Efforts will continue to monitor for sustainability, with a plan for expansion of this project to include other immunosuppressed patient populations and clinics

REFERENCES


Lauren Robinson, MD, Leanne M. Mansfield, MD, Jheel Pandya, MD, Jessica Fennell, MD, William Ambler, MD, Alexa Adams, MD, Sarah F. Taber, MD, Karen B. Onel, MD, Nancy Pan, MD
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