Baylor College of Medicine

10TH ANNUAL

Quality Improvement and Patient Safety Conference

—

Communication and Building QI Capacity

April 23, 2024

10th Annual Quality Improvement and Patient Safety Conference

Baylor College of Medicine

Baylor Alkek and Kleberg Auditorium
1 Baylor Plaza
Houston, TX 77030

In collaboration with
Institute for Healthcare Improvement
Texas Children's Hospital

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103 - The Impact Of Physician-Hospital Integration On Care Quality In US Acute Care Teaching Hospitals

Abstract #103

Lead Author: Xiao Li, MS

Contributing Authors: Jae Man Park, Mark Biscone, Zhanna Novikov

Category: Quality, Cost, Value

Background: Physician-hospital integration (PHI), which refers to the type of contractual control arrangement of hospitals establish with their physicians, has been gaining traction in the United States (US) as a strategy to enhance care quality, such as lower risk-adjusted hospital-level mortality rates, 30-day readmission rates, and length of stay. However, the impact of PHI in context of acute care teaching hospitals that place a strong emphasis on the improvement of care quality, remain comparatively underexplored.

AIM Statement/SMART GOAL: Drawing on agency theory defining the relationship between the principals and agents, this paper has two objectives: 1) to assess if PHI adoption helps align physicians' and hospitals' interests, thereby being related to three key care quality metrics: 30-day hospital-wide unplanned post-discharge readmission rate, 7-day risk-standardized hospital visit rate after outpatient colonoscopy, and patient satisfaction; and 2) to assess whether PHI strategies are an essential component for achieving care quality improvement in US acute care teaching hospitals.

Methods: Using secondary nationwide data from four sources, this study conducted a cross-sectional analysis. The final hospital sample included 874 acute care teaching hospitals that with or without PHI adoption. To investigate the associations between PHI and the three aforementioned care quality metrics, we performed multiple linear regressions and ordinal logistic regression, respectively. Furthermore, we employed a necessary condition analysis to determine whether PHI is a necessary condition for improving care quality of US acute care teaching hospitals.

Results: We found that acute care teaching hospitals with PHI adoption were more likely to have a lower 30-day hospital-wide unplanned post-discharge readmission rate ($P<.05$) and 7-day risk-standardized hospital visit rate after outpatient colonoscopy ($P<.05$). In addition, hospitals with PHI tended to have higher overall patient satisfaction ($P<.05$). We also found that PHI adoption

was a necessary, although not sufficient condition, for achieving lower 7-day risk-standardized visit rate after outpatient colonoscopy.

Discussion and Conclusion: Adopting PHI as a strategy is crucial for US acute care teaching hospitals, due to its positive impact on elevating the quality of care and patient satisfaction. Recognizing that PHI is not a catch-all solution for all care outcome enhancements, its role in synchronizing the objectives of physicians and hospitals remains crucial. By adopting PHI, hospitals (the principals) can better synchronize their interests with those of the physicians (the agents), fostering a more effective collaboration. This synergy might be essential for promoting teamwork, a critical element in elevating the overall quality of healthcare services.

104 - Increase Documentation Of 4Ms In Geriatrics Clinic

Abstract # 104

Lead Author: Chien-Wai Chiu, MD

Contributing Authors: Kathryn Agarwal, MD

Category: Quality, Cost, Value

Background: Age-friendly health system (AFHS) is an evidence-based framework for high quality care to all older adults which is centered around the 4Ms. The 4Ms are Matters Most (covers goals/preferences), Medication safety, Mentation (evaluation of mood/cognition), and Mobility assessment. The problem is lack of an easy and consistent way for providers to document 4Ms during visits. In Baylor Geriatrics Clinic , 4Ms assessment is formally included in Annual Wellness Visit (AWV) and in a new Speedbutton template for hospital discharge visits. There is no standard template to document 4Ms in routine visits. Prior to intervention, chart audit shows the complete 4Ms documented in approximately 25% of visits and Matters Most has lowest documentation rate. Pre-intervention survey also reveals that many providers do not typically address what Matters Most.

AIM Statement/SMART GOAL: The aim is to increase the percentage of patients with complete 4Ms documentation who present for all types of clinic visits at BCM Geriatrics Clinic.

Smart Goal is to increase median from 25% to 50% of patients received complete 4Ms evaluation in the Baylor Geriatric clinic within 6 months.

Methods: The primary outcome is measured via chart audit of convenience sample of 20 patient charts per month with yes/no checklist for 4Ms components, completed for 9 of months. First PDSA cycle measures the percentage of Speedbutton usage that includes documentation of 4Ms after a brief education to geriatrics clinicians about the Speedbutton. Second PDSA cycle will implement a dotphrase template for 4Ms focused on Matters Most to look for changes in primary outcome.

Results: After implanting Speedbutton, only 42% notes include the 4Ms. Outcome measure with chart audit also shows median percentage of complete 4Ms documentation is at 40% three months after September intervention, which is still not at goal of more than 50%.

Discussion and Conclusion: No significant increase in overall 4Ms documentation was observed after implanting Speedbutton discharge followup template. The number is greatly affected by low utilization of Speedbutton. Next steps include plan to survey providers for feedback on the Speedbutton tool and to start second PDSA cycle with implementation of the dotphrase 4Ms template to address Matters Most.

105 - Implementation Of A Universal Social Determinants Of Health Screening Program In A Maternal-Fetal Medicine Clinic

Abstract # 105

Lead Author: Celeste Green MD, MPH

Contributing Authors: Towana Sims, Leslie Goodwin, Hania Luna, Haleh Sangi-Haghpeykar, Katherine Wang, Sarah Tounsi, Aimee Jackson, Christina M. Davidson

Category: Improvement Science

Background: Social determinants of health (SDOH) influence pregnancy outcomes, including severe maternal morbidity and mortality. The American College of Obstetrician-Gynecologists recommends screening pregnant patients for SDOH and addressing their needs during prenatal care. Few examples of such programs have been described.

AIM Statement/SMART GOAL: To assess feasibility and effectiveness of a universal social determinants of health (SDOH) screening and referral program in a Maternal-Fetal Medicine (MFM) clinic.

Methods: All patients seen in the MFM clinic from April 2022 through February 2023 completed a 6-question SDOH needs screening paper form at entry to care, 25-28 weeks gestation, and at 35 weeks gestation. Questions assessed for food, housing, and transportation needs, and need for financial assistance with utilities or medication. Patients also indicated if they desired a social work (SW) referral to be connected to resources. The primary outcome was positive screen rate for at least one SDOH need. Secondary outcomes were positive screen rates for each SDOH domain, rate of resolution of SDOH needs over time, and rate of completed SW referrals. Generalized linear mixed methods were used to assess patient characteristics associated with positive screen.

Results: Seven hundred thirty-eight patients were screened over 1,223 visits. One hundred forty-seven (20%) screened positive for at least one SDOH need during pregnancy. Patients who screened positive were more likely to be single, non-Hispanic Black, Spanish-speaking, & insured by Medicaid. Housing & transportation were the most reported SDOH needs, with 56 people (7.6%) screening positive for each of these determinants. Of patients screened over 3 visits (N=117), 4% still had unmet housing needs & 2% had unmet transportation needs on their last

visit, compared with 6% on the first visit ($p < .0001$). Of those who requested SW referral (N=104), 69% had a SW consultation before delivery.

Discussion and Conclusion: Implementation of a universal SDOH screening program is feasible and effective in an obstetrics clinic, as long as the practice has resources to offer if patients screen positive. In our clinic, positive SDOH screens decreased over time, suggesting needs were adequately addressed through social work referrals.

106 - Improving Evidence-Based Management Of Iron Deficiency Among Patients Admitted With Acute Decompensated Heart Failure

Abstract # 106

Lead Author: Hanqing (Kathy) Shang, MD

Contributing Authors: Alekhya Kotta, Mohammad Saadatagah, James Tran, Erin Yang, Irene Lee, Salim Najjar, Katy Hicks, Lubna Khawaja

Category: Quality, Cost, Value

Background: Patients admitted with acute decompensated heart failure who have iron deficiency have a lower risk of readmission if given intravenous (IV) iron per the AFFIRM-AHF trial.

AIM Statement/SMART GOAL: Increase the percentage of patients admitted to Ben Taub Hospital (BTH) with acute decompensated heart failure with ejection fraction less than 50% (HFrEF) who have appropriate assessment and management of iron deficiency by 30% from baseline over a 3 month period.

Methods: We obtained records of patients admitted to BTH with a diagnosis of acute decompensated HFrEF between 10/1/2023 and 10/31/2023. Patients with ejection fraction < 50% admitted to academic medicine teams were included. Iron deficiency was defined as ferritin < 100 ng/ml or 100-200 ng/ml with transferrin saturation < 20% (per AFFIRM-AHF trial). Outcome measures were the percent of patients with iron deficiency assessed during admission and the percent of patients with iron deficiency who received IV iron. Patients were considered adequately assessed for iron deficiency if iron panel with ferritin was obtained during admission or < 3 months prior. Patients were considered appropriately managed either if they met criteria for iron deficiency and received IV iron or if they did not meet criteria for iron deficiency. The balancing measure of documented adverse reaction to IV iron was also assessed.

Our intervention involves disseminating educational posters to academic medicine teams on recommended guidelines for assessment of iron deficiency in patients with acute HFrEF. Announcements during educational conferences and posts on residency message boards will also be made.

Results: Between 10/1/23 and 10/31/23, 63 patients were admitted to BTH with acute decompensated heart failure. Of these, fifty-five patients had heart failure exacerbation as the primary diagnosis for admission. Seventeen were admitted under an academic medicine team. Of these patients, fifteen (88%) had adequate assessment of iron deficiency. Four did not have iron deficiency and thus did not receive IV iron. Of the eleven patients with iron deficiency, eight received IV iron during the admission. None had documented adverse responses to IV iron. Overall, twelve out of seventeen (71%) patients had adequate iron management during their admission.

Discussion and Conclusion: Baseline data analysis reveals that there remains a quality gap in assessing and treating iron deficiency among patients admitted with decompensated HFrEF. Additional data collection is needed to determine whether the rate of appropriate iron management is consistent over time. The impact of our intervention is currently being assessed.

107 - High Value Care And Quality Improvement In Medical Education: A Reflection On Two Years Of Dean's Distinction

Abstract # 107

Lead Author: Aidan Boyne, BS

Contributing Authors: Jimin Kim (Co-first author), Meredith Cerra, Jordan Pemberton, Neeraj Agrawal, Kyle W. Blackburn, Raymond Kitziger

Category: Education

Background: Health outcomes in the United States continue to lag behind peer countries despite significantly higher medical spending. As a result, practicing physicians have faced increasing pressure from administration and payers to provide high-value care (HVC). Undergraduate medical education, however, often lacks formal training in HVC and quality improvement (QI) concepts. To address this gap, the Baylor College of Medicine (BCM) Dean's Distinction in HVC and QI provides a structured curriculum incorporating modules, lectures, and reflection activities which provide an introduction to the theory and implementation of HVC and QI.

AIM Statement/SMART GOAL: The knowledge of and confidence in key HVC and QI concepts gained by participants in the 12-month 2022-2023 Dean's Distinction program will remain equal or improve from the 18-month 2021-2022 program as measured by objective test performance and subjective questionnaire responses.

Methods: Anticipating a change to one-year preclinicals in the undergraduate medical school curriculum, the Dean's Distinction in HVC and QI was shortened from 18 for the 2021-2022 cohort to 12 months for the 2022-2023 cohort. All requirements and curriculum elements (consisting of online modules, podcasts, live didactics, and project development) remained the same across cohorts.

Before and after completing the distinction, students (n=33 for both cohorts) answered 28 objective multiple-choice questions about key HVC and QI concepts and 6 subjective questions rating perceived importance of and confidence in HVC and QI using a 5-point Likert scale. A two-sided Mann-Whitney U (MWU) test was performed to assess (A) the difference in each cohort's pre/post-test score improvement and (B) the difference in change in agreement with each

subjective question after completing the program. Significance cutoffs for both the objective and subjective scores were set to p=0.05.

Results: There was no statistically significant difference in pre/post-test score improvement for the objective questions between groups (mean cohort difference (MCD) = 1.18; p = 0.22). The 2022-2023 cohort experienced a larger positive change in their agreement with questions related to the integration of QI/HVC into curriculum (MCD = 0.51; p = 0.012) and their ability to apply these principles clinically (MCD = 0.66; p = 0.022).

Discussion and Conclusion: There was no significant difference in objective scores between cohorts, demonstrating that shortening the program from 18 to 12 months did not affect performance. A significant increase in two subjective questions supports the effectiveness of the shortened program in promoting student confidence in HVC and QI, but results may be skewed recency bias in participants.

108 - Optimizing Cervical Cancer Screening For Women With Systemic Lupus Erythematous: A Quality Improvement Project

Abstract # 108

Lead Author: Ahmed Alderazi M.D.

Contributing Authors: Lee Bach Lu

Category: Health Outcomes / Services Research

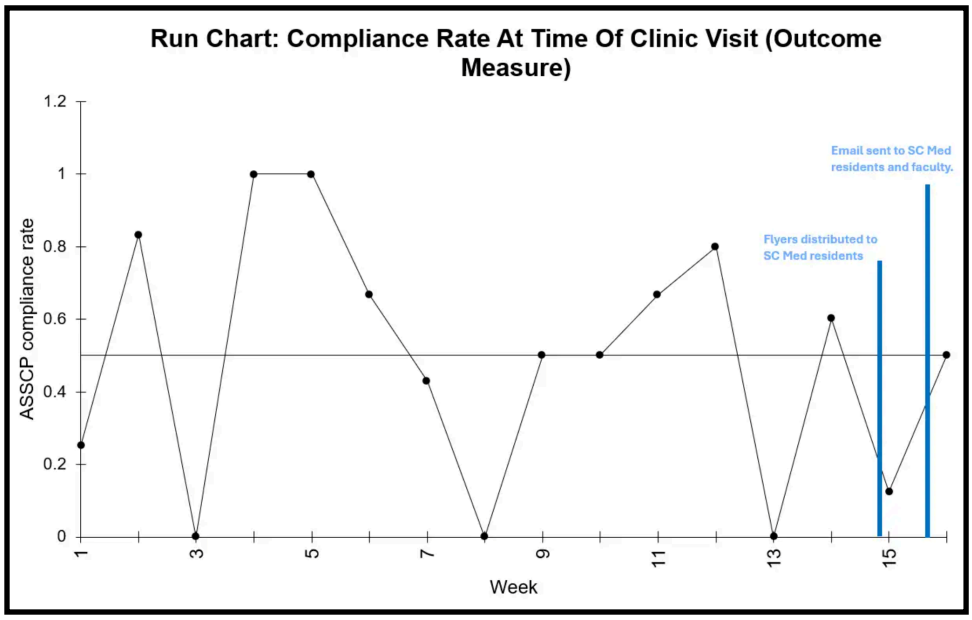
Background: Female patients with systemic lupus erythematosus (SLE) have an elevated risk of developing cervical atypia and cancer. This risk is further amplified by the use of immunosuppressive medications, which are often part of SLE treatment. Acknowledging this elevated risk, the American Society for Colposcopy and Cervical Pathology (ASCCP) issued guidelines recommending more frequent screening for all SLE patients, regardless of immunosuppressive medication use. However, studies paint an alarming picture of suboptimal compliance with these guidelines in this patient population.

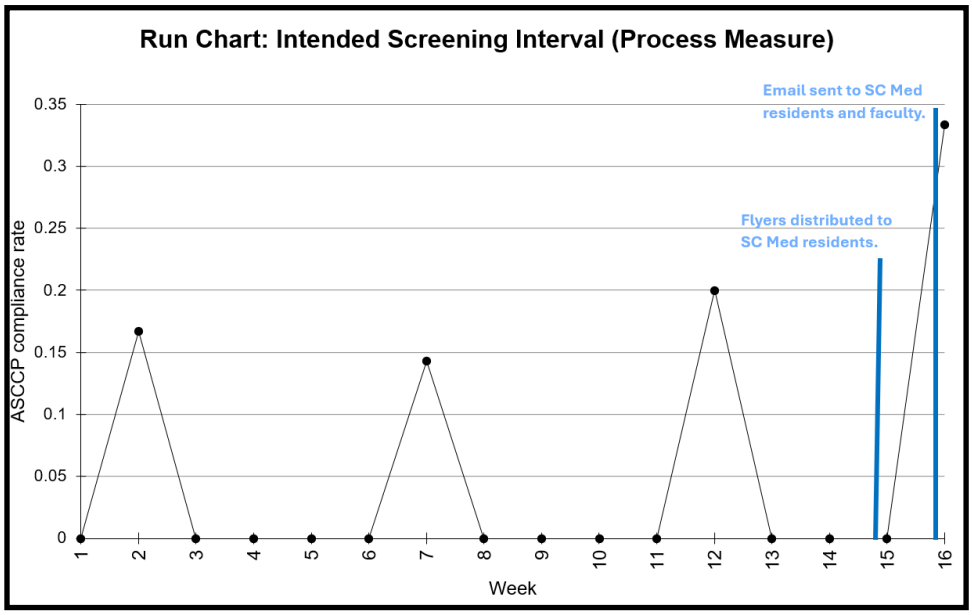
AIM Statement/SMART GOAL: This quality improvement project aims to measure and subsequently improve compliance with ASSCP guidelines with regards to cervical cancer screening in SLE patients presenting to a resident and fellow-run county clinic in Houston, Texas.

Methods: Eligible patients, females aged 30 to 65 with SLE, were identified through EMR query. We excluded patients with confounding comorbidities such as HIV and a history of recent cervical atypia. Chart checks were conducted to extract the rate of ASCCP guideline adherence (outcome measure) and intended screening interval (process measure). Intervention involved educating providers (residents, fellows, and attendings) using email and flyers.

Run charts were used to track changes across the study period.

Results: Of the 142 patient visits evaluated, 63 were included in the QI project (57 pre-intervention and 6 post-intervention). In the pre-intervention group, 28 (49%) were up to date per ASCCP guidelines during clinic visits, but documentation of appropriate intended screening frequency was observed in only 3 (5%) cases. In the post-intervention group, 3 (50%) were up to date per ASCCP guidelines, and 2 (33%) had documentation indicating the need for screening every 3 years or less.





Discussion and Conclusion: These results show surprisingly low rates of provider documentation regarding the need for more frequent screening for SLE patients, likely due to lack of awareness of these guidelines.

Notably, in the pre-intervention group, patients correctly identified as high risk for cervical cancer were exclusively assigned to be screened annually, likely reflecting providers' awareness of guidelines such as the American Cancer Society which endorses annual screening for SLE patients. After intervention, both annual and every 3-year screening were observed in ASCCP

guideline compliant patients. Provider knowledge of these guidelines may be helpful in addressing hesitations from patients regarding more frequent (annual) screening.

Early post-intervention data is promising for process outcomes. Ongoing data collection continues, with plans for further interventions in the upcoming months.

1010 - Improvements In Clinician Efficiency With Central Line Kits

Abstract # 1010

Lead Author: Taylor Vickers, PA-C

Contributing Authors:

Category: Improvement Science

Background: The most frequently performed procedures in the surgical ICU at Baylor St. Luke's Medical Center involve obtaining vascular access for central lines, dialysis access, arterial lines, and midlines. These are often done in an emergent manner on unstable patients, occupying the clinician while other patient needs might arise. Since the hospital-supplied procedure trays require supplemental items for a standard placement, delays often occur due to difficulties in locating supplies and recall of which materials to gather. In this complex environment, each barrier introduced to procedure completion contributes to clinician task-loading and perceived stress. Therefore it is necessary to develop a process that enhances efficiency and alleviates stress surrounding this commonly performed task.

AIM Statement/SMART GOAL: The objective of this project was to develop line kits designed with input from clinicians performing the procedures and deploy them for use, aiming to reduce the time required to gather materials by at least half and improve responses to a stress-monitoring survey after three months of availability.

Methods: Efficiency was assessed through a process map developed via clinician interviews. Cause and effect analysis identified bottlenecks, and baseline surveys gauged initial stress levels. Initial quantitative data collected the time from supply room entry to patient room entrance, including time needed to return for additional supplies. Line kits were deployed, and the process was repeated.

Results: Post-implementation surveys indicated high acceptance and satisfaction with the line kits. Respondents cited their ease of use and reported a decrease in stress by no longer having to think through what to grab. The initial time spent gathering supplies averaged 150 seconds, or 2.5 minutes; however, time data was unable to be measured post-intervention as there was no longer a need to stop in the supply room.

Discussion and Conclusion: The team's response to the line kits was overwhelmingly positive, praising their streamlined approach and usefulness in emergencies. The elimination of supply room returns facilitated a substantial workflow improvement, allowing clinicians more time to focus on patient management outside of procedures. Future exploration could assess scalability and the longer-term impact on clinician satisfaction and patient outcomes. Overall, this intervention met the aim of the quality improvement project and proved to be a valuable, sustainable solution for streamlining surgical ICU procedures.

1011 - Evaluation Of Umbilical Catheter Positioning Using Point Of Care Ultrasound In The NICU

Abstract # 1011

Lead Author: Amee Amin, MD

Contributing Authors: Ahmed Al Maazmi, Ashley Upton, Joseph Hagan, Christopher Cassady, Mona Khattab

Category: Patient Safety

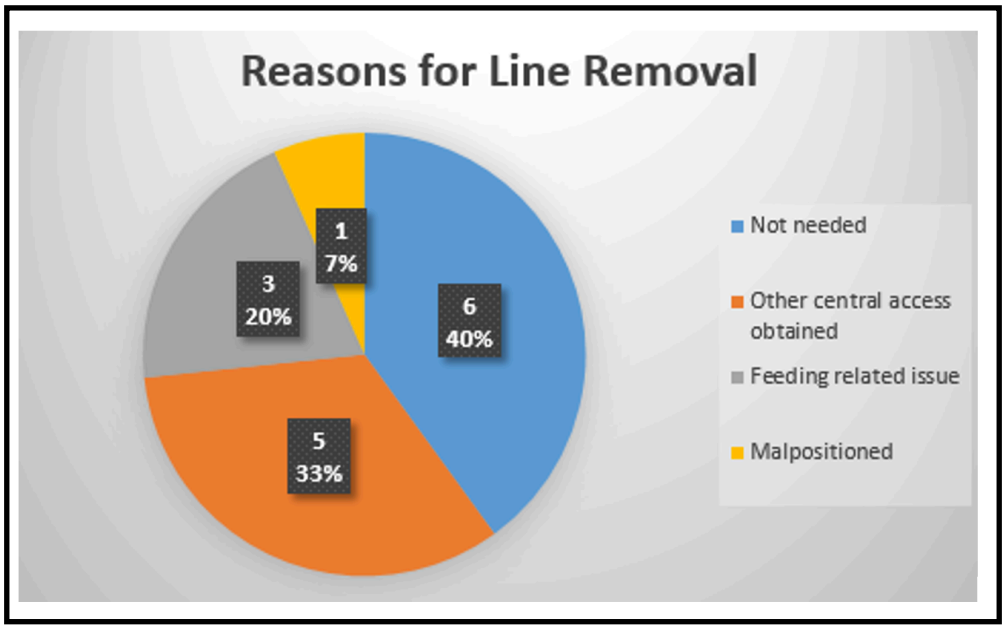
Background: The standard practice to evaluate umbilical arterial (UAC) and umbilical venous (UVC) line positioning is via anterior – posterior radiograph (X-ray). Misplacement, both during initial placement and subsequent line migration can lead to severe complications from increased morbidity (e.g. pericardial effusion, cardiac tamponade, pleural effusion, thrombosis, cardiac arrhythmias, liver hematoma, portal hypertension etc.) and mortality. Several studies have questioned the ability of an X-ray to accurately evaluate the catheter tip position and have concluded that Ultrasound (US) is superior to X-ray at determining central line tip position.

AIM Statement/SMART GOAL: June 2023 we will decrease the rate of malpositioned umbilical lines and improve early detection of line migration by at least 50% in our level III/IV NICUs.

Methods: We scanned preterm and term newborns at Texas Children's Hospital (TCH) in Houston, Texas following umbilical lines placement. US scans were performed at three time periods: 1) within 6 hours of line placement, 2) at 48 - 72 hours of line placement, 3) prior to line removal to monitor line position and identify any mal positioning/migration from the previous scan. All babies were deemed clinically stable for the US scan by the primary team. Baylor College of Medicine IRB approved this study and exempted consent for this QI study.

Results: Sixteen newborns averaging 32 weeks gestational age and birth weight of 1755.3g were recruited and scanned for 16 UVCs and 12 UACs that were placed. Rate of malpositioned UVC was 23/38 (60.5%) versus 2/20 (10%) for UAC ($p<0.001$). Number of malpositioned lines at each US scan are depicted in Table 1, revealing that the highest number of malpositioned lines occurred at 48 – 72 hours indicating line migration. The average number of x-rays for line placement per newborn was 1.9 with an average of 0.6 manipulations.

Patient Demographics	
No. of infants	16
Gestational age (weeks) mean ± SD	32.0 ± 4.3
Birth weight (g) mean ± SD	1755.3 ± 1059.3
Descriptive Umbilical Line Data	
No. of UVCs placed and scanned	16
No. of UACs placed and scanned	12
No. of malpositioned UVCs	
Within 6 hours of placement	9
Within 48 – 72 hours of placement	10
Prior to removal	4
No. of malpositioned UACs	
Within 6 hours of placement	0
Within 48 – 72 hours of placement	1
Prior to removal	1
No. of x-rays obtained	**Frequency %**
1	3 (19%)
2	9 (56%)
3	3 (19%)
7	1 (6%)



Discussion and Conclusion: POCUS is a non-invasive, non-radiation – based, safe and emerging modality in the NICU that can used to evaluate the position of central umbilical catheters and detect malpositioned/migrated lines in a timely manner.

1013 - Mental Health Screening In Childhood SLE at Texas Children's Hospital

Abstract # 1013

Lead Author: Emily Beil, MD

Contributing Authors: Sharanya Joginpalli, Arin Byers, Patsy Keegan, Shelby Brooks, Martha Curry, Marietta DeGuzman, Cagri Yildirim-Toruner

Category: Health Outcomes / Services Research

Background: Childhood-onset systemic lupus erythematosus (cSLE) is a common pediatric rheumatologic diagnosis that influences many aspects of a child's life. Patients with cSLE have a higher prevalence of depression (2.9x) and suicidal ideation (5.4x) compared to the general pediatric population. The disease course is chronic, unpredictable and poor mental health can influence long-term outcomes. Our patients have close follow-up with rheumatology, though currently there is no routine mental health screening process in place.

AIM Statement/SMART GOAL: Increase annual anxiety and depression screening in cSLE patients > 12 years old seen at Mark Wallace Rheumatology clinic from 0% to 50% by December 31, 2023 and sustain for 6 months.

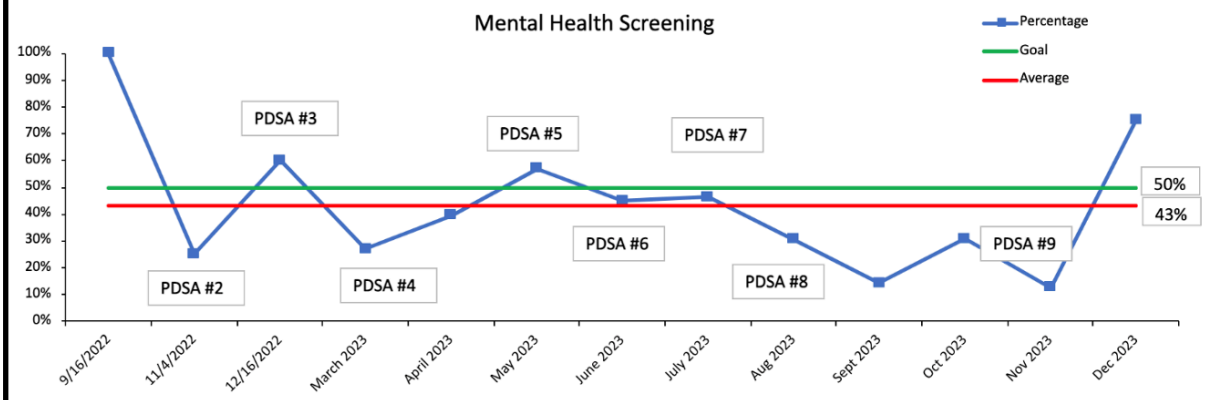
Methods: We held a multi-disciplinary team (MDT) QI meeting, which included social work, medical assistants, nursing staff, and rheumatology providers, to obtain stakeholder input and identify needs for improvement of the mental health screening in clinic. Screening tools used included the AAP standardized Patient Health Questionnaire (PHQ-9) and the Generalized Anxiety Disorder (GAD-7) assessment forms in English and Spanish.

We created a fishbone and key driver diagram to outline drivers and interventions. We completed our first PDSA cycle to identify the clinic flow from time of patient check in to provider encounter. We then created a FMEA table with clinic process flow, barriers and potential solutions. We completed 9 PDSA cycles based on quarterly MDT meeting feedback for further interventions. Interventions included rheumatology fellow Mental Health Workshop, provider awareness on safety protocol with Columbia Risk and Protective Factors, pre-visit planning weekly emails, adoption of EPIC flowsheet documentation, and EPIC track of last date screened.

Results: Details of PDSA cycles and results are displayed in Figure 1. Overall, mental health screening improved from 0% to 43% by December 31, 2023. Of the 104 total patients screened,

there were 16 (15.4%) positive screens and 4 with positive suicidal ideation. We did not meet our goal of 50% screens by December 2023, as we faced challenges early in implementation with adoption of a new clinic flow process and re-screening.

Figure 1. Run Chart



	9/16/2022	11/4/2022	12/16/2022	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	Sept 2023	Oct 2023	Nov 2023	Dec 2023
Numerator (#Screened)	1	1	3	7	17	24	22	13	7	1	4	1	3
Denominator (Total Eligible)	1	4	5	26	43	42	49	28	23	7	13	8	4
Percentage	100.0%	25.0%	60.0%	26.9%	39.5%	57.1%	44.9%	46.4%	30.4%	14.3%	30.8%	12.5%	75.0%

PDSA Cycles:
1: One provider, one patient
2: One provider, multiple patients
3: Different provider, multiple patients
4: First MDT meeting (introduce clinic flow process)
5: Second MDT meeting (trouble-shoot process, lockbox in clinic)
6: Send out weekly list (securely) with reminder emails for pre-visit planning
7: Avoid re-screening of patients
8: Third MDT meeting (updates, introduce project to new staff)
9: Fourth MDT meeting (showing results for motivation)

Discussion and Conclusion: We completed this dedicated QI project with a health equity lens, focusing on multiple interventions to improved mental health screening in cSLE patients. Next steps will incorporate automated screening and spreading to satellite rheumatology clinics. We expect the percentage of patients screened will continue to increase.

1014 - Diabetic Retinopathy Screening Rates At Student-Run Clinics In The United States: A Systematic Review And Meta-Analysis

Abstract # 1014

Lead Author: Nicholas Peoples, MD Student

Contributing Authors: Dylan McBee (Co-first Author) , Shangzhi Xiong, Alexandra Alvarez, Shiwei Wang, Emily Wang, Ashley Ricciardelli , Dana Clark, Tien Yin Wong

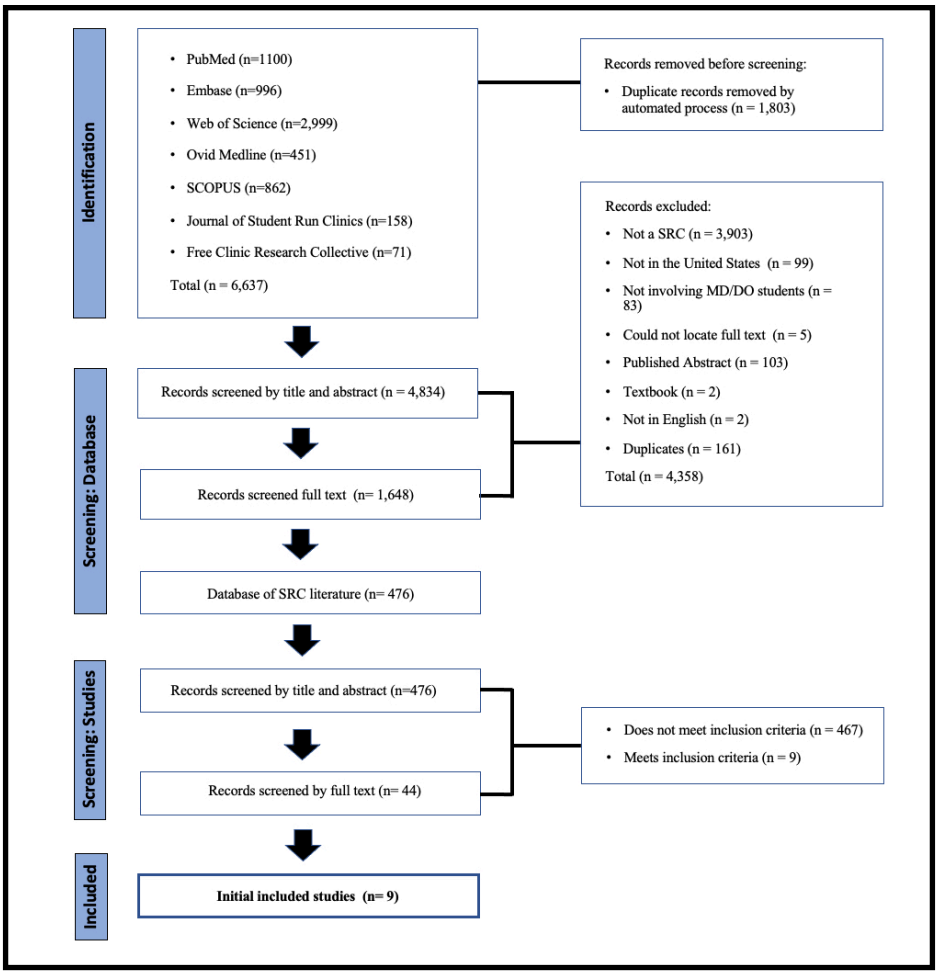
Category: Health Outcomes / Services Research

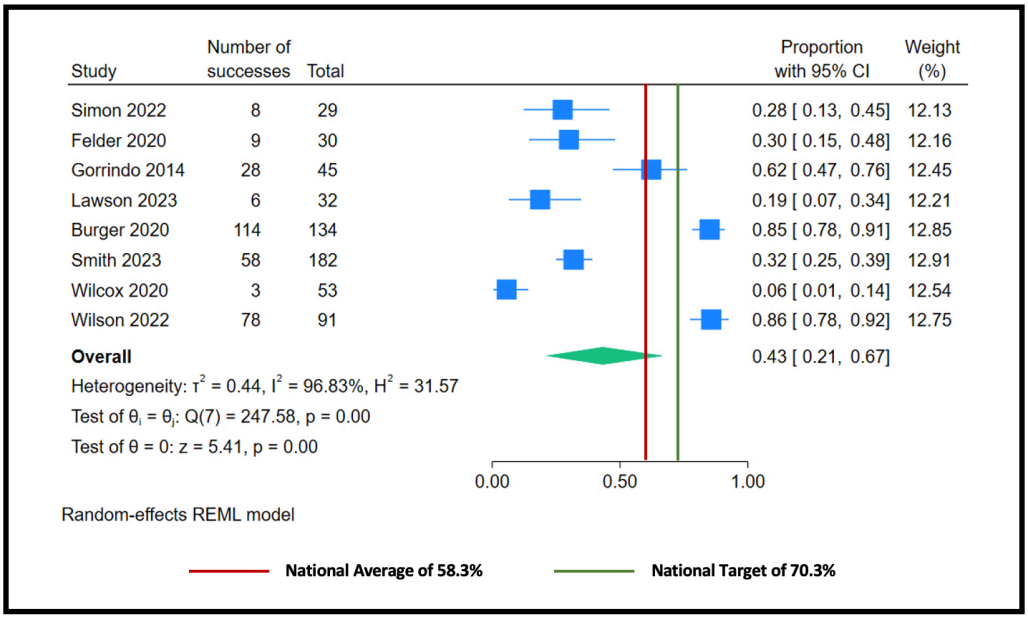
Background: Annual diabetic retinopathy (DR) screenings comprise an important quality-of-care metric for both preventive and specialty eyecare at student-run clinics (SRCs). The SRC literature currently only features results from individual clinics, and to best characterize the efficacy of this unique healthcare delivery model, it may be more useful to look at composite data.

AIM Statement/SMART GOAL: To compare pooled DR screening rates at SRCs in the United States to the national average and national target set by the United States Department of Health and Human Services.

Methods: We systematically reviewed PubMed, Embase, Ovid Medline, Web of Science, and SCOPUS for all publications concerning SRCs in the United States and performed a meta-analysis of studies reporting on DR screening.

Results: Out of 6,637 initial results, we identified nine publications reporting on DR screening at eight SRCs. The overall screening rate was 43% [95%CI = 0.21–0.67]. 5/8 SRCs fell below the national average of 58.3% and 6/8 fell below the national target of 70.3% set by the US Department of Health and Human Services. DR screening was the lowest or second-lowest completed annual screening at 6/7 SRCs. The clinic with the highest screening rate used retinal photography with telemedicine. No study assessed quality of DR screening.


Identification
PubMed (n=1100)
Embase (n=996)
Web of Science (n=2,999)
Ovid Medline (n=451)
SCOPUS (n=862)
Journal of Student Run Clinics (n=158)
Free Clinic Research Collective (n=71)
Total (n = 6,637)
Records removed before screening:
Duplicate records removed by automated process (n = 1,803)
Screening: Database
Records screened by title and abstract (n = 4,834)
Records screened full text (n= 1,648)
Records excluded:
Not a SRC (n = 3,903)
Not in the United States (n = 99)
Not involving MD/DO students (n = 83)
Could not locate full text (n = 5)
Published Abstract (n = 103)
Textbook (n = 2)
Not in English (n = 2)
Duplicates (n = 161)
Total (n = 4,358)
Database of SRC literature (n= 476)
Screening: Studies
Records screened by title and abstract (n=476)
Records screened by full text (n= 44)
Does not meet inclusion criteria (n = 467)
Meets inclusion criteria (n = 9)
Included
Initial included studies (n= 9)


Study
Number of successes
Total
Proportion with 95% CI
Weight (%)
Simon 2022 8 29 0.28 [0.13, 0.45] 12.13
Felder 2020 9 30 0.30 [0.15, 0.48] 12.16
Gorrindo 2014 28 45 0.62 [0.47, 0.76] 12.45
Lawson 2023 6 32 0.19 [0.07, 0.34] 12.21
Burger 2020 114 134 0.85 [0.78, 0.91] 12.85
Smith 2023 58 182 0.32 [0.25, 0.39] 12.91
Wilcox 2020 3 53 0.06 [0.01, 0.14] 12.54
Wilson 2022 78 91 0.86 [0.78, 0.92] 12.75
Overall 0.43 [0.21, 0.67]
Heterogeneity: τ^2 = 0.44, I^2 = 96.83%, H^2 = 31.57
Test of $\theta_i = \theta_j$: Q(7) = 247.58, p = 0.00
Test of θ = 0: z = 5.41, p = 0.00
0.00
0.50
1.00
Random-effects REML model
National Average of 58.3%
National Target of 70.3%

(Additional table representing specifics of included studies can be accessed by contacting the author directly)

Discussion and Conclusion: DR screening at SRCs in the United States is currently suboptimal. Emerging innovations such as retinal photography, telemedicine, and artificial intelligence may help address this gap. Additionally, as the first-ever meta-analysis in the SRC literature, we suggest that future research using pooled and/or prospective, multi-clinic data to characterize patient and process outcomes at SRCs would be an important contribution to the field.

1015 - Improving Sepsis Documentation At MEDVAMC

Abstract # 1015

Lead Author: Chelsea Wu, MD

Contributing Authors: Katherine Richards

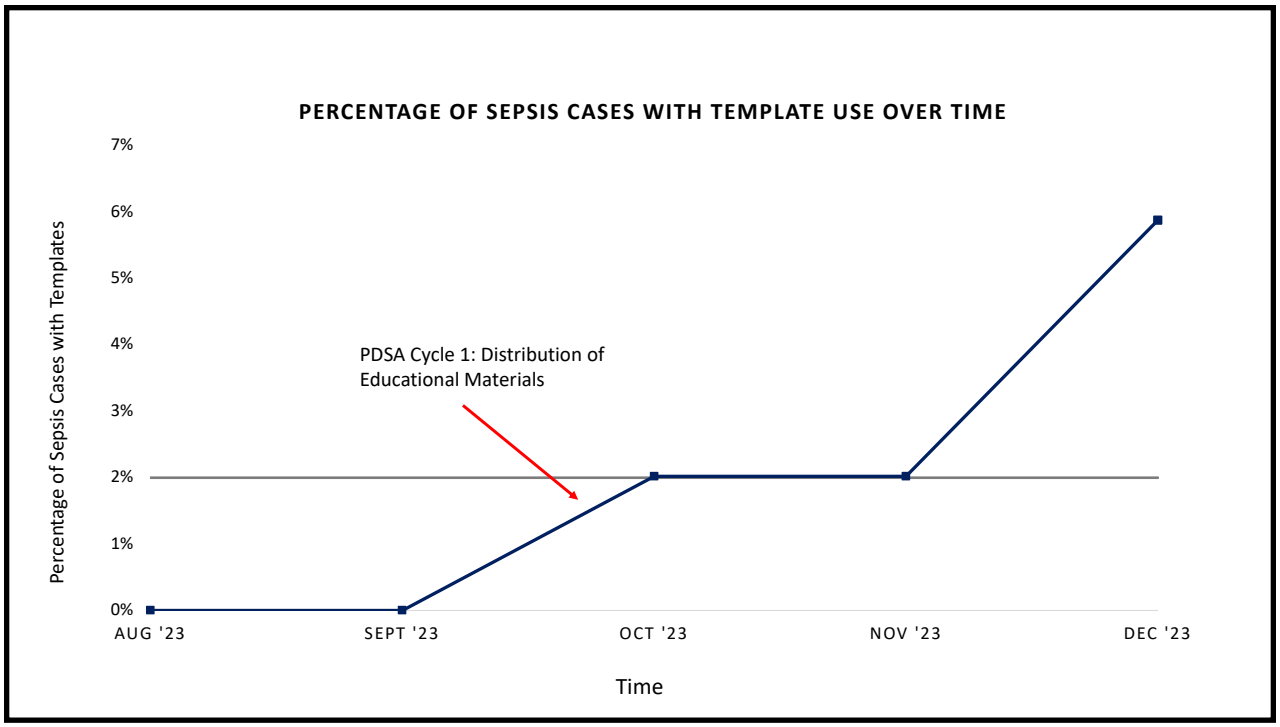
Category: Quality, Cost, Value

Background: Sepsis is a common hospital condition with high mortality if not recognized and treated appropriately. Some studies have demonstrated decreased mortality associated with adherence to the Centers for Medicare and Medicaid Service's sepsis performance measure bundle (SEP-1). This bundle includes time-sensitive parameters for collection of blood cultures and lactic acid levels, administration of antibiotics, intravenous fluids, and vasopressors, and documentation of perfusion status. Unfortunately, SEP-1 metrics at the Michael E. Debakey VA Medical Center (MEDVAMC) remain below VA national average.

AIM Statement/SMART GOAL: The goal of this project was to improve compliance with the SEP-1 bundle at MEDVAMC through utilization of a sepsis order set and a sepsis note template in the electronic medical record (EMR). Usage of the VA sepsis note template served as a process measure for adherence to SEP-1 measures. Our aim was to increase the percentage of monthly sepsis cases with sepsis template documentation to 20% by March 1, 2024.

Methods: The quality improvement project was carried out at MEDVAMC from October 2023 to March 2024. Baseline data of SEP-1 metrics was collected through chart review of all severe sepsis and septic shock cases between June and August 2023. The first Plan-Do-Study-Act (PDSA) cycle in October 2023 consisted of educational materials, including posters and virtual orientation with instructions for accessing the order set and template. A second PDSA cycle was initiated in January 2024 with alternative methods of virtual education, in-person resident orientation, and incorporation of the template into existing History and Physical templates.

Results: Review of 54 severe sepsis and septic shock cases from June to August 2023 revealed that baseline compliance with all components of the SEP-1 bundle at MEDVAMC was 46.3%. None of the cases reviewed had utilized documentation with the sepsis note template. After implementation of PDSA cycle 1, the use of the template increased to 5.88% in December 2023. Data collection for PDSA cycle 2 is ongoing.



Discussion and Conclusion: Prior to our interventions, existing tools to improve sepsis performance measures at MEDVAMC were not utilized. This highlights a baseline lack of knowledge of tools within the EMR for sepsis management as well as an opportunity to improve metrics dependent on documentation. Following our interventions, there has been a small increase in sepsis template usage, however significant room for improvement remains and additional data is needed to evaluate trends and impact on SEP-1 adherence.

1016 - Improving Radiology Resident Familiarity With A Breast Imaging Dictation System

Abstract # 1016

Lead Author: Cortlandt Sellers, MD

Contributing Authors: Lauren Pupa, Luke Gilman

Category: Education

Background: Breast Imaging radiology reports are standardized nationally with the Breast Imaging Reporting and Data System (BI-RADS) lexicon. At Harris Health Smith Clinic, these reports are generated with the PenRad Mammography Information System (PenRad) software. The lexicon and software are distinct from other subspecialities in radiology, and for residents, the learning curve for report generation is steep and time-consuming. Any time saved on PenRad report generation would allow for additional opportunities for residents to interpret images and engage in direct patient care.

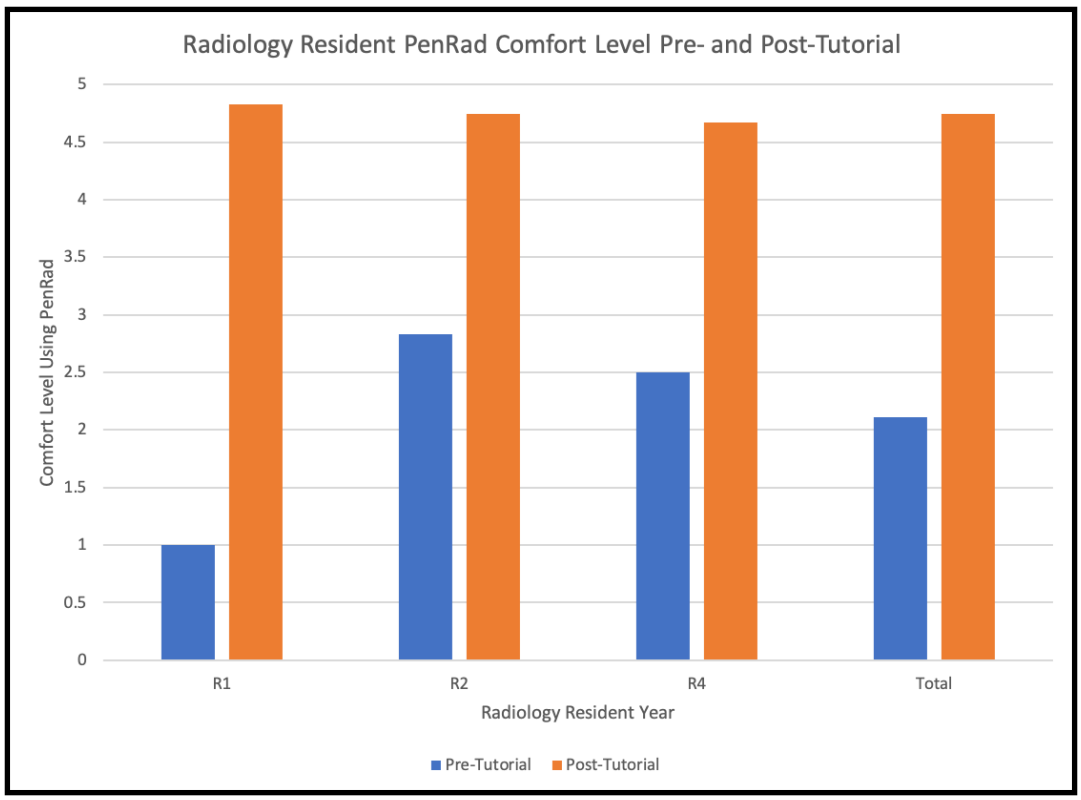
Aim Statement/SMART Goal: To improve radiology resident comfort level with the PenRad breast imaging dictation system in a six-month period.

Methods: A PenRad instructional tutorial was created using images from PenRad with detailed text instructions on how to use the interface and generate reports. From July to December 2023, radiology residents were emailed the PenRad tutorial on the first day of each rotation. Radiology residents on the Breast Imaging rotation at Smith Clinic then completed a questionnaire on the first day of the rotation prior to viewing the PenRad tutorial. This questionnaire was then repeated following 10 clinical working days into the rotation. Quantitative variables from the questionnaires were given on a score of 1 to 5 with 1 being “not at all comfortable” or “not at all helpful” and 5 being “very comfortable” or “very helpful.” Residents were also asked to comment on qualitative reasons for level of comfort/helpfulness prior to and after implementation of the tutorial.

Results: Data was compiled from 18 residents (6 R1’s, 6 R2’s, and 6 R4’s) from 2023. 18 pre-tutorial and 16 post-tutorial quizzes were available for review. Pre-Tutorial, the average level of resident comfort with using PenRad was 2.1 (R1 1.0, R2 2.8, R4 2.5).

Post-Tutorial, the average level of resident comfort with using PenRad increased to 4.8 (R1 4.8, R2 4.8, R4 4.7), a 228% increase (see Figure 1). When only the R2's and R4's were included, resident comfort level using PenRad went from 2.7 to 4.7.

Average PenRad tutorial helpfulness was rated as 4.4 for all residents (R1 4.3, R2 4.3, R4 4.7).



Discussion and Conclusion: The PenRad tutorial improved resident confidence and comfort with using PenRad. The tutorial will be included as a standard part of the rotation orientation materials. Future directions include the addition of a glossary of standardized dictation phrases and creation of a similar tutorial for the Hologic viewing system.

1017 - Geriatric Consults In A Large Academic Center

Abstract # 1017

Lead Author: Brittany Barthelemy, MD, Meeta Kanwar, MD, Huy Quoc Nong, MD, Jahanzeb Shaikh, MD, Siji Thomas, MD

Contributing Authors: Kristina Little, Angela Catic, George Taffet ,

Category: Patient Safety

Background: Effective geriatric consultation is essential to delivering high quality, age-friendly care to hospitalized older adults. At Houston Methodist Hospital (HMH), where the BCM geriatric program runs a robust consultative service, a variety of methods have been traditionally used to request consults. Due to lack of a standardized method of requesting consultations, it was noted that consults were being missed or delayed. The purpose of this QI project was to 1. Review methods through which consults were requested, 2. Identify the most effective consult request mechanism, and 3. Provide education to transition all consult requests to a single highly reliable method.

Aim Statement/SMART Goal: Between February 12 and March 25, 85% of geriatric consultations requested at HMH will be placed through the BCM geriatric answering service.

Methods: During October and November 2023, data was collected regarding the method used to request geriatric consultation at HMH. We identified the consulting source, resource used to identify how to request the consult, and method through which the consult was requested. Results were interpreted based on number of attempts before consult was received by on-call team and timeliness of consultation (seen same day, next day, or not at all).

Results: During the control period, a total of 53 consults were received. Consulting sources included residents (10), attending physicians (21), NPs (4), and other (18). Four methods were used to request consults: BCM geriatric answering service (19), geriatric attending personal phones (12), Houston Methodist geriatric cellphone (12), and on-call pager (1). One consult request was not received. Given the multiple ways consults were being requested, the risk of a delayed or missed consult was high. Geriatric fellows then tested the efficacy of calling consults through the BCM geriatric answering service and found it to be 100% timely and reliable.

Discussion and Conclusion: Currently, educational efforts are underway to communicate with HMH inpatient staff and trainees to request geriatric consults through the BCM geriatric answering service. Educational interventions include email communication, direct messages to high-volume consult users, communication at the bottom of notes, and flyers posted in team rooms. From February 12 through March 25, the consult request method will be tracked with the goal of 85% or more of geriatric consults at HMH being requested through BCM geriatric answering service.

1018 - Decreasing Same-Day Inpatient Colonoscopy Cancellations: A Systems Design Approach

Abstract # 1018

Lead Author: Michael Perrin MD, MPH

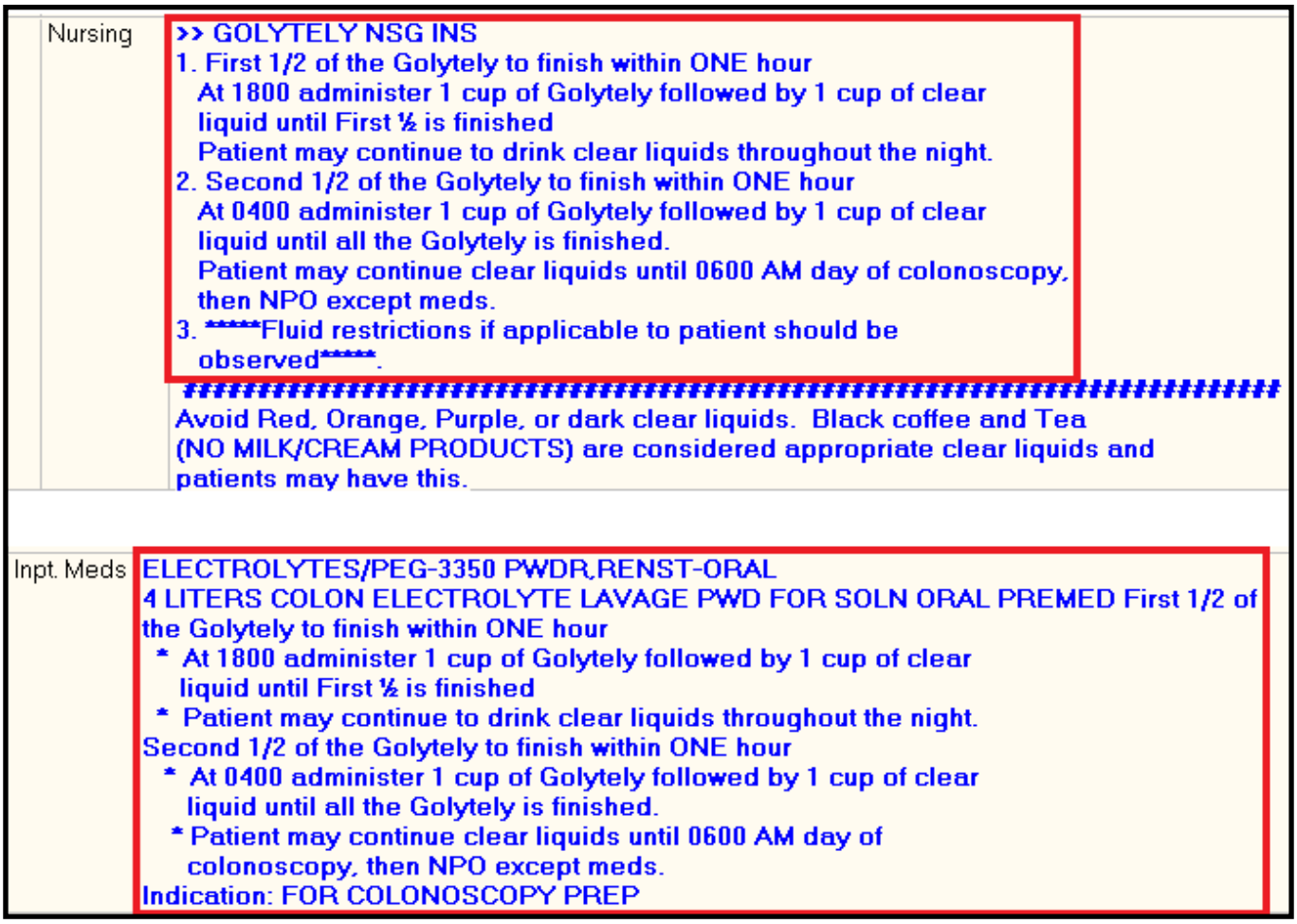
Contributing Authors: Emmanuel Palomera-Tejeda, Scott Larson

Category: Quality, Cost, Value

Background: Inadequate bowel prep is a recognized barrier to high-quality colonoscopies, and same-day inpatient cancellations due to inadequate bowel prep at our institution have been consistently higher than both outpatient cancellations and the set performance target of <15%. In the inpatient setting, colonoscopy completion as scheduled shortens length of stay and allows for timely diagnosis.

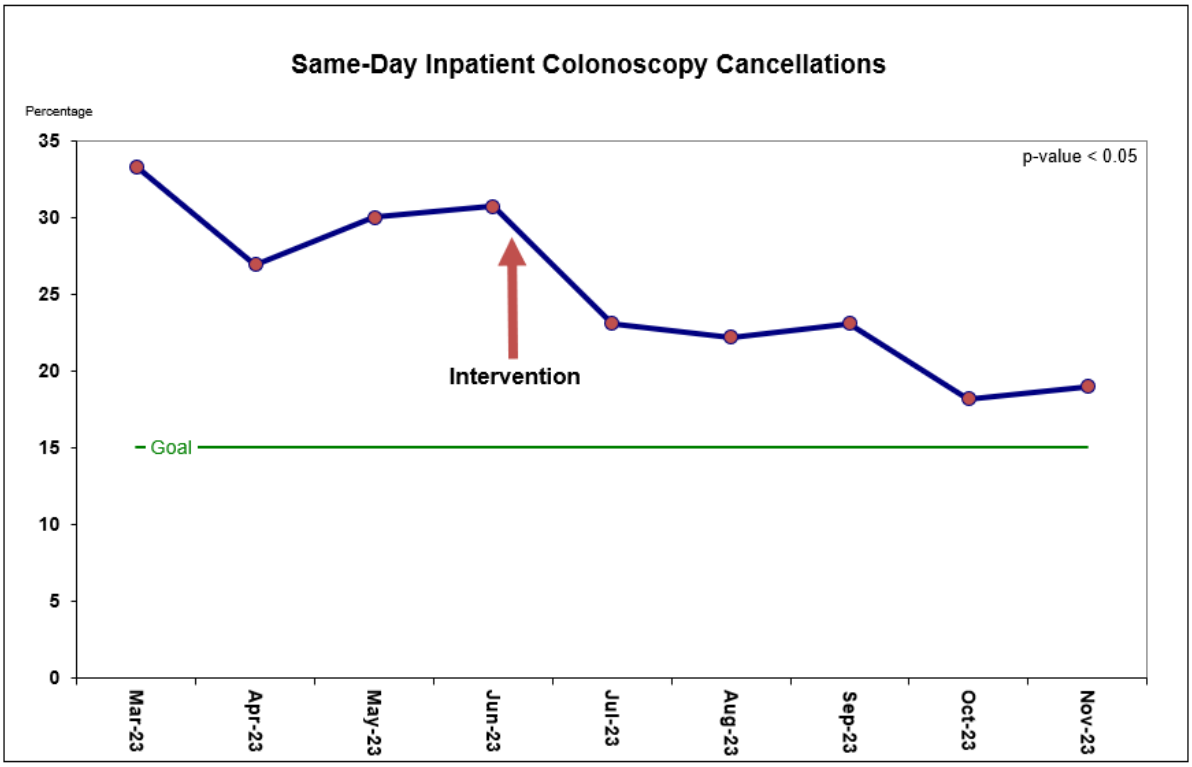
Aim Statement/SMART Goal: To reduce same-day inpatient cancellations due to inadequate bowel prep to <15% of total scheduled colonoscopies in 4 months.

Methods: We conducted guided interviews with healthcare professionals involved in the process of inpatient colonoscopy ordering to completion. Inpatient colonoscopies between March and November 2023 were identified and reviewed. We completed a process analysis using the interviews and chart review to understand the current state of inpatient colonoscopy processes. Based on the analysis, a quality initiative (QI) intervention implementing a new inpatient colonoscopy bowel prep order set within the electronic health record was initiated on July 1, 2023 (Figure 1). The order set specifically added detailed nursing instructions and automatic diet modifications.



Results: Root cause analysis revealed the inpatient bowel prep order set with strict NPO after midnight and lack of Golytley nursing instructions (Figure 1) was a high impact, low effort variable leading to same-day inpatient colonoscopy cancellations. A total of 218 scheduled inpatient colonoscopies were included. Descriptive analysis revealed an average age of 67.1 in the pre-intervention group (6.1% female) and 67.7 in the post-intervention group (7.1% female).

Prior to intervention, there were 114 inpatient colonoscopies scheduled, and 34 (29%) of these were canceled on procedure day due to inadequate prep. Post-intervention, there were 104 colonoscopies scheduled, and 19 (19%) of these were canceled on procedure day due to inadequate prep. Chi-squared test results were 3.9464 with a significant p-value of 0.047. (Figure 2).



Discussion and Conclusion: Our QI identified a systems barrier to inpatient colonoscopy completion. The intervention resulted in a statistically significant reduction in the number of same-day cancellations and rescheduling. Next steps include further Plan-Do-Study-Act cycles with a goal of >85% same-day high-quality colonoscopy completion. This study serves to highlight the importance of continuous monitoring and improvement of current practices to positively impact patient care and reflects the importance of a team-based approach to QI.

1019 - Factors That Contribute To Higher Learner Ratings Of An IPE Workshop For Quality Improvement And Patient Safety

Abstract # 1019

Lead Author: Vaishnavi Sankar, BS

Contributing Authors: Emily Wang, Yuanyuan Zhou, Lindsey Gay, Andrew Caruso, Phuong Huynh, Rebecca Aulbach, Catherine Hatfield, Diane Nguyen, Sarah-Ann Keyes, Anne Gill, Doris Lin

Category: Education

Background: Interprofessional education (IPE) is a key element in preparing current and future healthcare professionals to function in a collaborative healthcare workforce. Therefore, Healthcare institutions must prepare students to function effectively in interprofessional team environments when learning about quality improvement and patient safety.

Aim Statement/SMART Goal: Our goal was to develop an interprofessional quality improvement/ patient safety (QI/PS) workshop that included medical, nursing, physician assistant, and pharmacy students. We aimed to have the majority of participants be able to describe the roles and responsibilities of healthcare workers regarding quality improvement and patient safety events by the end of the workshop, as well as rate the quality of the workshop as very good or excellent. We also wanted to explore differences in the experience of the workshop across learners from different disciplines.

Methods: We implemented a monthly 2-hour IPE virtual workshop to review QI/PS concepts and practices. The interactive workshop occurred on Zoom and consisted of a mix of didactics and small group discussions led by faculty facilitators. At the end of the workshop, students completed an online questionnaire to rate the activity using a modified Likert scale and note strengths and areas for improvement. Survey data was analyzed using ANOVA to compare differences in mean ratings across learners of different disciplines. Qualitative data were analyzed to extract themes across workshop participants as a whole and between learner groups.

Results: From January 2021 to April 2023, 217 medical, 138 nursing, 60 PA and 30 pharmacy students participated in the workshop. We found that 93% of nursing students and 80% pharmacy students rated the overall workshop quality as very good or excellent compared to 68% of

medical students and 63% of PA students. Students generally exhibited a good understanding of each discipline's roles, responsibilities, and perspectives concerning the evaluation of patient safety events and quality improvement. However, students tended to have a better grasp of their own discipline's role compared to others. Ratings varied across disciplines, but overall, students held positive opinions about the effectiveness of the facilitators and the workshop's quality.

Discussion and Conclusion: After implementing an interactive IPE workshop to educate students on important QI/PS concepts, we conclude that learners from each discipline valued different aspects of the session. Further investigation into these differences will allow for continuous improvement of the workshop.

1020 - Improving Adequate And Timely Colonoscopy Completion Rates In Patients With Spinal Cord Injuries

Abstract # 1020

Lead Author: Michael Perrin MD, MPH

Contributing Authors: Scott Larson, MD, PhD

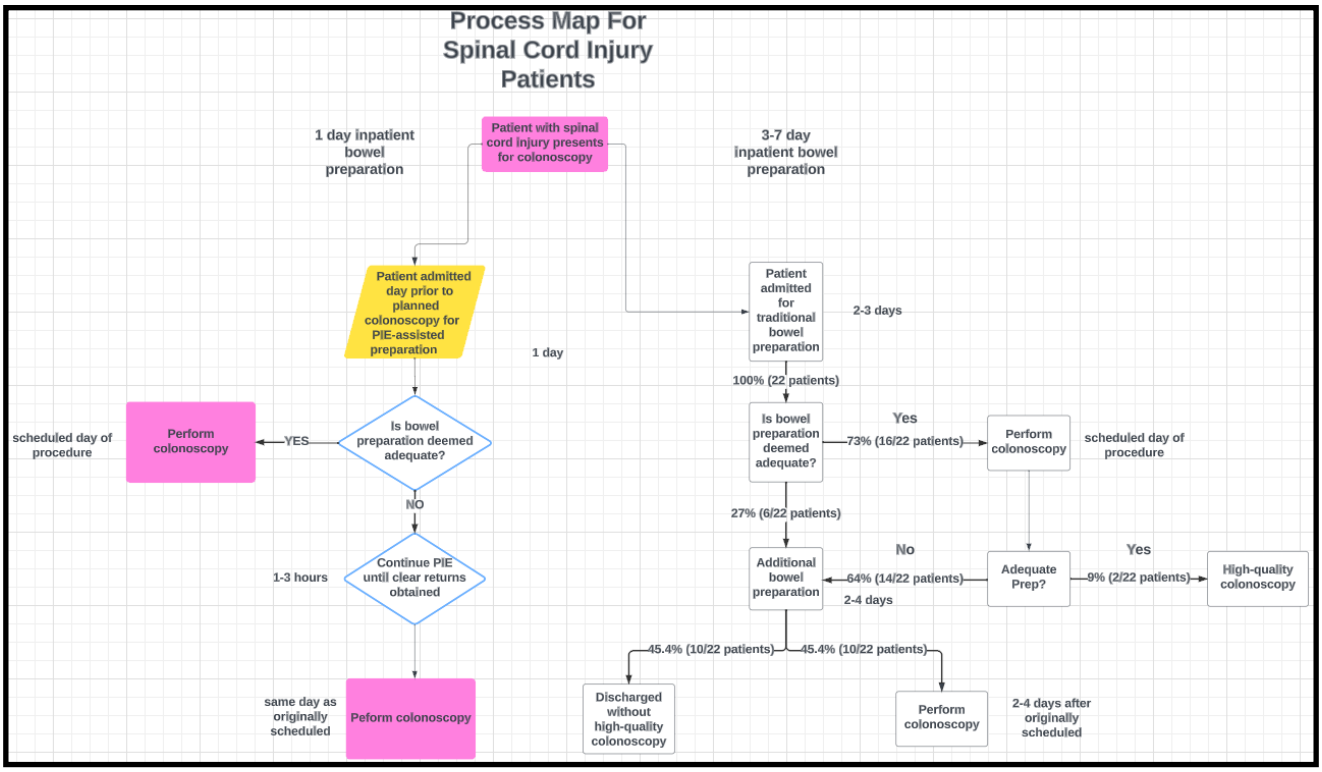
Category: Quality, Cost, Value

Background: Inadequate bowel preparation is a recognized barrier to timely, high-quality colonoscopies. In the case of spinal cord injury (SCI) patients with gastrointestinal dysfunction, standard preps are insufficient. Given the unique challenges of adequate bowel prep in this vulnerable population, spinal cord injury patients are disproportionately affected by a lack of adequate bowel prep. Herein we present bowel prep and colonoscopy outcomes for veterans with SCI at a local VA hospital.

Aim Statement/SMART Goal: To improve rates of adequate, as-scheduled colonoscopy completion prior to discharge in spinal cord patients admitted for colonoscopy to >85% in the next 12 months.

Methods: We assembled a team including gastroenterologists, endoscopy nurses, spinal cord injury physicians and nurses for this quality improvement initiative. We performed a process analysis using chart review and interviews with providers to understand the current state of bowel preparation and colonoscopies in veteran SCI patients. A retrospective analysis was performed on all 22 spinal cord injury patients admitted for elective colonoscopy between April 2021 and July 2023. Data was collected via chart review. Pulsed-irrigation evacuation (PIE) technology, a novel bowel evacuation technique, was acquired and readied for use.

Results: Descriptive statistical analysis revealed an average age of 64.0 (95.4% male). SCI veteran patients undergo 2 to 3 days of extended inpatient colonoscopy prep that includes 12L of Golytely, multiple enemas, and optional Foley catheters and/or rectal tubes. Analysis revealed that 27% of patients were cancelled on the originally scheduled colonoscopy day due to PIBP, and 63.6% of patients that were attempted on the originally scheduled day had inadequate prep and had to be re-scheduled, prolonging their hospital stay. 45.4% of patients were discharged without having completed a high-quality colonoscopy. We identified pulsed irrigation evacuation (PIE) as a



safe, high-impact, patient-centered alternative for bowel preparation as reflected by the process map (Figure 1).

Discussion and Conclusion: This analysis demonstrates the challenges of high-quality colonoscopy completion in patients with spinal cord injuries and highlights the disproportionate burden placed on this group of veterans in terms of time and prep. Novel solutions such as PIE must be actively considered to provide this population with adequate, timely care. We have acquired the PIE technology for our SCI veterans and are currently enrolling patients with goal of >85% as-scheduled, high-quality colonoscopies within the next 12 months.

1022 - Improving Post-Discharge Cardiac Rehabilitation Participation For Veterans Admitted For Myocardial Infarction And Percutaneous Coronary Intervention

Abstract # 1022

Lead Author: Salim Najjar, MD

Contributing Authors: Mon S Bryant, Lindsay Vaclavik, Molly J Horstman, Savitri E. Fedson

Category: Improvement Science

Aim Statement/SMART Goal: We aim to improve CR participation for inpatients at the Houston VAMC who are discharged home after MI and/or PCI and do not undergo cardiac surgery to >40% by April 2024.

Methods: PDSA cycle #1 was initiated on 8/24/23 with integration of education on cardiac rehabilitation into monthly clinical orientation for internal medicine residents. For PDSA #2, a new order menu for cardiac rehabilitation was launched in the electronic medical record and integrated into the discharge follow-up menu on 9/19/23. The primary outcome measure is the CR participation rate for qualifying inpatients post-MI and post-PCI who did not undergo cardiac surgery. CR referral rate for the same population is assessed as a process measure. Balancing measures include referral failure rate, time from referral to participation and participation/referral rates for the cardiac surgery population. Run charts and statistical process control charts were used to measure change over time.

Results: Non-surgical CR participation rate increased from 5% to 17.8% with an accompanying increase in referral rate from 11.5% to 28.9% from our pre-intervention performant to December 2023. No special cause signals were observed. Surgical referral and participation rates were unchanged, averaging 86.3% and 69.8% respectively across the full period reported. Referral failure rate for all eligible patients was unchanged, averaging 30.6%. Average time to enrollment was 21.5 days pre-intervention compared to 15.7 days post-intervention.

Discussion and Conclusion: A modest early improvement in post-MI and post-PCI CR referral and enrollment was seen after education and implementation of a new order menu. Data collection to determine sustainability is ongoing. Barriers to CR referral by the cardiology consult team are being explored to guide future interventions. Potential directions include building a forcing function

in the medicine discharge process, referral via clinical liaison using prospective eligibility identification or automated electronic referrals.

1023 - Insights From The 2023 Dean's Distinction In High Value-Care And Quality Improvement In Undergraduate Medical Education

Abstract # 1023

Lead Author: Meredith Cerra MD Student

Contributing Authors: Jordan Pemberton (co-first author), Aidan Boyne, Jimin Kim, Kyle Blackburn, Raymond Kitziger, Neeraj Agrawal

Category: Education

Background: Healthcare spending in the United States exceeded $4.5 trillion USD in 2022, more than the entire gross domestic product of every other country in the world except China. Despite enormous expenditures, the US lags behind peer nations in many healthcare domains including maternal care and chronic disease management.

Hospitals and professional organizations are keenly aware of these worrying figures and practicing physicians have faced increasing pressure from administration and payers to provide high-value care (HVC). Undergraduate medical education, however, often lacks formal training in HVC and quality improvement (QI) concepts. To address this gap, the Baylor College of Medicine (BCM) Dean's Distinction in HVC and QI provides a structured curriculum incorporating modules, lectures, and reflection activities which provide an introduction to the theory and implementation of HVC and QI.

Aim Statement/SMART Goal: The objective of this study was to assess the efficacy of the BCM Dean's Distinction in Foundations of HVC and QI in equipping students with knowledge and confidence in HVC and QI concepts, assessed through a comparison of student performance on objective and subjective questions before and after completion of the 12 month Dean's Distinction program.

Methods: Thirty-three students who completed the 2023 Dean's Distinction, a 12 month-long program beginning August of their MS1 year, answered a 34 question assessment before starting and after completing the distinction. The assessment consisted of 28 objective multiple-choice questions and 6 subjective questions rating perceived importance of and confidence in HVC and QI using a 5-point Likert scale. Data was processed via Microsoft Excel. Significance was determined via paired t-tests with a threshold of $p=0.05$.

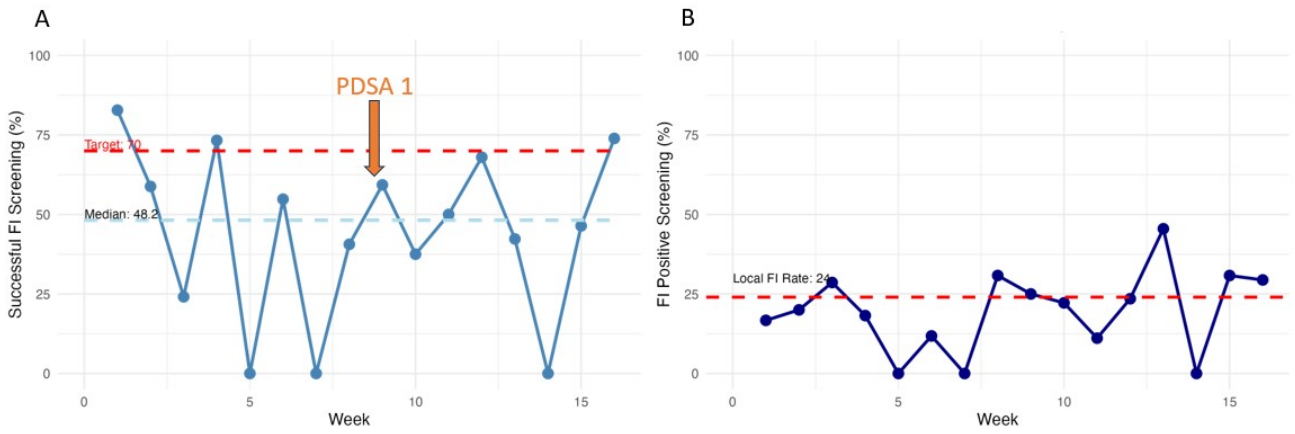


Figure 1. A) Run chart of food insecurity (FI) screening rates shown with median and screening target of 70%. Educational PDSA cycle was performed at week 9. **B)** FI positive screening results by week shown with Harris County child FI rate (2020, Feeding America).

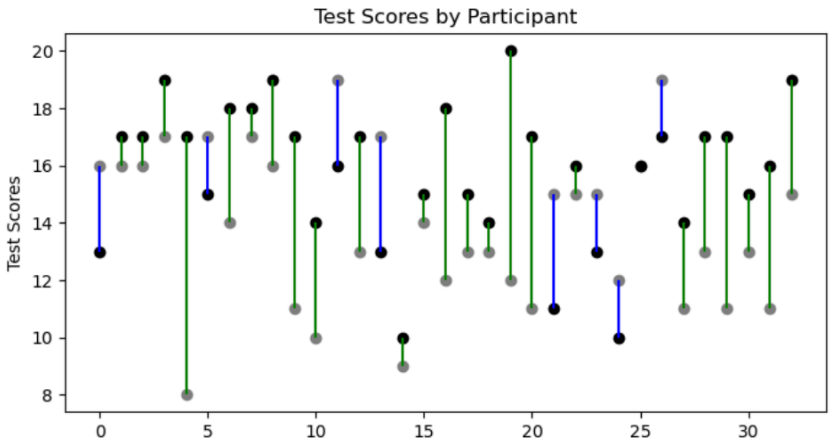
Results: The mean pre-program score was 57.9% (SD = 12.6%). The mean post-program score was 68.1% (SD = 10.79%), representing an average increase of 22.2% (SD 30.1%; $p < 0.001$). Mean self-reported confidence in HVC and QI increased by 1.64 (SD = 0.86; $p < 0.001$) and 1.55 (SD = 0.90; $p < 0.001$) respectively on a 5-point Likert scale. Agreement with the statement "I feel equipped to apply high-value care and quality improvement concepts in a clinical setting to improve patient outcomes" increased by 2.27 (SD = 0.91; $p < 0.001$).

Table 1: Pre and Post-Program Comparisons of Confidence, Perceived Importance, and Attitude Toward QI and HVC Concepts

Question	Pre-Program Assessment Mean Out of 5 (SD)	Post-Program Assessment Mean Out of 5 (SD)	Paired % change	P value
What is your confidence level with concepts in quality improvement?[a]	2.06 (0.83)	3.70 (0.53)	114.9%	<0.0001
What is your confidence level with concepts in high-value care?[a]	2.18 (0.88)	3.73 (0.63)	99.5%	<0.0001
How important do you perceive the role of quality improvement to be in medicine?[b]	4.61 (0.75)	4.82 (0.39)	9.3%	0.182
How important do you perceive the role of high-value care to be in medicine?[b]	4.70 (0.59)	4.79 (0.42)	4.0%	0.475
Quality improvement and high-value care should be incorporated into a formal medical school curriculum (i.e. included in required coursework).[c]	4.27 (0.67)	4.73 (0.45)	13.4%	0.002
I feel equipped to apply high-value care and quality improvement concepts in a clinical setting to improve patient outcomes.[c]	1.82 (0.88)	4.09 (0.58)	174.2%	<0.0001

[a]Likert scale (1 = lowest confidence, 5 = maximum confidence)
[b]Likert scale (1 = not important at all, 5 = very important)
[c]Likert scale (1 = strongly disagree, 5 = strongly agree)

Graph 1: Pre and Post-Program Assessment Scores by Participant



Of the 33 students, 24 demonstrated improvement on the knowledge assessment while 9 demonstrated no improvement.

Discussion and Conclusion: Participation in the Dean's Distinction significantly increased students' knowledge of QI and HVC principles and their confidence in applying these principles.

1024 - Implementation Of Food Insecurity Screening In Pediatric Cardiology Fellows' Clinic

Abstract # 1024

Lead Author: Derek Norton, MD

Contributing Authors: Alexander Kiener, Joseph Burns, William "Buck" Kyle, Shreya Sheth, Mounica Rao, Patrick Day, Paul Cooper, Carlos Sanchez Parra

Category: Health Outcomes / Services Research

Background: Food insecurity (FI) negatively impacts many children in the United States. Children with congenital heart disease may be at higher risk of adverse clinical outcomes related to FI. The American Academy of Pediatrics recommends screening for FI at well child visits; however, there is added value for patients in screening at subspecialty care visits where nutrition is a component of the therapeutic plan.

Aim Statement/SMART Goal: Within one year, we aim to screen over 70% of families presenting to the Texas Children's Hospital (TCH) Pediatric Cardiology Fellows' Clinic for FI.

Additional Objectives (optional): Secondarily, we aim to provide printed resource materials to 100% of families who screen positive for FI.

Methods: We implemented the Hunger Vital Sign™, a validated two-question screening tool based on the U.S. Household Food Security Survey Module. For families that screened positive, we provided printed instructions for accessing resources in their area. Primary outcome measures included the number of families screened and the number of families provided with resources following a positive screen. Sociodemographic data were also analyzed.

Results: From September 2023 through January 2024 there were 416 patients seen in clinic. Run charts revealed variable screening success early in the intervention (median 47.7%, IQR 18-59%) (Figure 1). Overall, 183 families were screened for FI with a 23.5% positivity rate. There were no significant differences between families experiencing FI and those who were food secure based on patient sex, age, race, ethnicity, or insurance provider type. Families for whom English was not their primary language were more likely to report FI, 34.9% vs 16.4% (p = 0.01).

Discussion and Conclusion: A key driver of early screening challenges was rotation of ancillary staffing for the clinic. An educational intervention stabilized screening rates in the first PDSA cycle, but further optimization is needed. FI is common in our patients and is associated with having a non-English primary language. Language has been shown to relate to other social drivers of health. Increased understanding of these drivers will be essential to improving health equity for our patients. Next steps include utilization of EMR to facilitate screening reminders.

1025 - Impact Of Resident-Led Crisis Intervention Training On Police Officer Attitudes And Management Of Psychiatric Disorders

Abstract # 1025

Lead Author: Youssef Ahmed B.S.

Contributing Authors: Rachel Stroh, Dania Albaba, Nancy Shenoi, Somto Obi, Dr. Nidal Moukaddam

Category: Education

Background: Over the past 30 years, research has focused on the burgeoning liaison between police and mental health professionals through Crisis Intervention Training (CIT). The literature indicates that CIT training has reduced healthcare costs and improved healthcare outcomes.

Aim Statement/SMART Goal: Our study aims to analyze the efficacy of a mental health education course designed by psychiatry residents for Houston-area police officers receiving behavioral health training.

Methods: Psychiatry resident physicians from Baylor College of Medicine provided interactive, live-teaching lectures for police officers in the Harris County Sheriff's Office. Inclusion criteria were all police officers who attended mental health training sessions. Exclusion criteria were officers who declined to participate. Pre- and post-course surveys utilizing Likert scales were administered in paper format to assess knowledge on psychiatric terminology and mental illness recognition. Results were analyzed using Qualtrics and Excel 365 and a two-sample t-test was performed to compare response averages.

Results: Police officers (n=99) who completed the course consisted of 75% male, 24% female, and 1% non-binary. 41% of officers were Black/African American, 36% were Hispanic/Latino, 20% were White/Caucasian, and 3% were Asian/Native American/other. Before the course, there was a significant relationship between knowing someone with schizophrenia and the attitude that patients with schizophrenia have less propensity to commit violent crime ($p<0.05$). Among those police officers receiving or having received psychiatric treatment, attitudes indicated less perceived likelihood of aggression in patients with schizophrenia as opposed to the same or more in those without schizophrenia ($p<0.05$). Officer attitudes significantly changed following the course, with the perception that patients with schizophrenia are less likely to be violent or

aggressive post-survey (Likert scale mean 2.95) rather than pre-survey (3.72) ($p<0.05$). 92-99% of police officers reported increased confidence in de-escalating situations involving patients with schizophrenia and substance use disorders, facilitating admission to mental health facilities, and communicating about patients with healthcare professionals. There was an improvement in officers' comfort levels in addressing and referring individuals with schizophrenia and substance use disorders for psychiatric care, with Likert scores rising from 3.04 pre-training to 3.67 post-training ($p<0.05$).

Discussion and Conclusion: Our course has shown promising shifts in perceptions among police officers towards patients with psychiatric illnesses. The limitations of this study include potential self-report bias, lack of generalizability to all police departments, and long-term impact. Future directions include assessing larger samples of police officers on other mental health conditions.

1028 - Improving Colorectal Screening Rates Among Persons Aged 45 To 64 Years Old In A Primary Care Clinic: A Multimodal Approach

Abstract # 1028

Lead Author: Isabel Valdez, PA-C

Contributing Authors: Olubunmi Oladunjoye

Category: Quality, Cost, Value

Background: Colorectal cancer (CRC) is the third most common cancer in the United States and is one of the most preventable cancers. There are multiple screening methods, and although screening rates have increased, the national rate remains under 80%. It has been reported that the screening rate is lower among those ages 50-64 years old when compared with those older than 65 years old. Additionally, the high incidence and mortality of this cancer afflicts a younger population; in May 2021, the United States Preventative Service Task Force (USPSTF) updated the CRC initial screening age to 45 years due to the increasing incidence of CRC in individuals under 50 years old. Additional efforts are needed to increase screening rates in this younger cohort.

Aim Statement/SMART Goal: To increase CRC screening rates by 10% among patients aged 45 to 64 years old in Baylor Medicine McNair General Internal Medicine (GIM) clinic between July 2023 and May 2024.

Methods: A multi-PSDA cycle and multimodal intervention was used to educate providers and patients. In PDSA cycle 1, we provided an educational presentation for the faculty and staff to remind the providers to offer both non-invasive and invasive CRC screening. Providers were given a demonstration on how to order both non-invasive and invasive CRC screening using the patient's electronic medical record health maintenance registry at their appointments. In the second PDSA cycle, we designed and provided educational brochures for patients, which were made available in all patient rooms. For PDSA cycle 3, we will send MyChart screening reminder messages to patients in February 2024; patients will be able to reply and inform the investigators their preferred screening test and orders will be submitted for a colonoscopy or Cologuard test according to patient's preference. We will also send automated messages to remind patients to complete their screening tests 15- and 45-days after the initial outreach reminder message.

Results: CRC screening at the Baylor Medicine McNair GIM increased from 65.5% in July 2023 to 68.2% in December 2023 among patients aged 45-64 years old.

IMPROVING COLORECTAL SCREENING RATES AMONG PERSONS AGED 45 TO 64 YEARS OLD IN A PRIMARY CARE CLINIC: A MULTIMODAL APPROACH

Isabel Valdez[1] and Olubunmi Oladunjoye[1]

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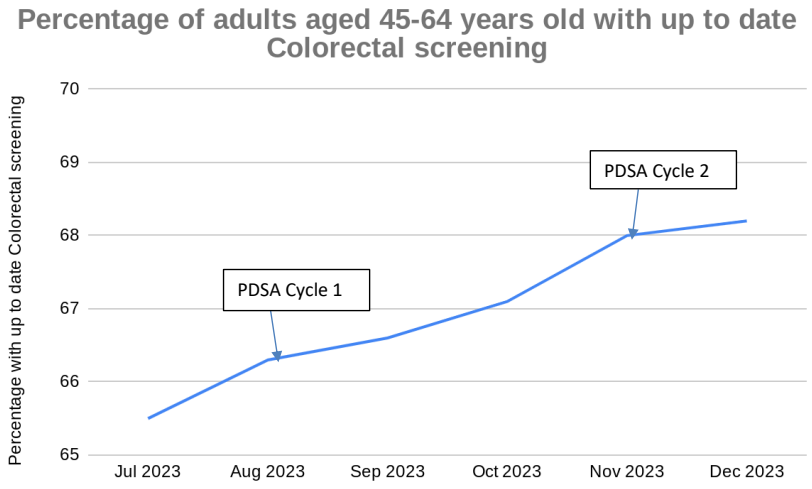


Discussion and Conclusion: To date, this intervention has successfully increased the CRC screening. More than one intervention may be required for significant improvement in CRC screening among patients aged 45-64 years old. This project is still in progress, and additional interventions are needed to achieve our target screening rate.

1029 - Improving The Rate Of Post-Discharge Follow-Up In The Heart Failure Transition Clinic

Abstract # 1029

Lead Author: Zachary Thompson, MD

Contributing Authors: Savitri Fedson, Lindsey Gay Lindsay Vaclavik, Molly Horstman

Category: Health Outcomes / Services Research

Background: Congestive heart failure (CHF) is the most common causes of hospital readmission in the US, with nearly one in four patients readmitted within 30 days of discharge. Short-interval follow-up after CHF hospitalizations has been shown to reduce readmission rates. Current CHF re-admission rates range from 18-20% at the Houston VA. The Heart Failure Transition Clinic (HFTC), started in April 2023, aims to provide post-discharge follow-up to individuals admitted with CHF, however, only 40% of eligible patients were seen in clinic.

Aim Statement/SMART Goal: We implemented a multidisciplinary quality improvement project with the primary goal of increasing the rate of post-discharge follow-up in the HFTC for eligible veterans admitted to the Houston VA for CHF from 40% to 60% by March 2024.

Methods: Interventions focused on improving the processes of identifying eligible veterans, communicating these veterans to the HFTC team, and scheduling the identified veterans. From August to December 2023, interventions included: small group orientation sessions for resident and hospitalists, standardization and dissemination of eligibility criteria, and standardization of the scheduling process. Outcome measures included the proportion of eligible veterans seen in the clinic. Process measures included the identification rate of eligible veterans, the scheduling rate of identified eligible veterans, and the clinic attendance rate of scheduled veterans. Balancing measures focused on the rate of clinic visits scheduled greater than 14 days from discharge. Data were analyzed over time using run charts. The Institute for Healthcare Improvement run chart rules were used to identify special cause signals.

Results: The median percentage of all eligible veterans seen in the HFTC increased from 40.6% pre-intervention to 58.8% during the three months post-intervention. A special cause signal was identified, consisting of a shift that coincided with the start of the first intervention. Special cause signals were also seen for identification rate and scheduling rate, both of which increased post-

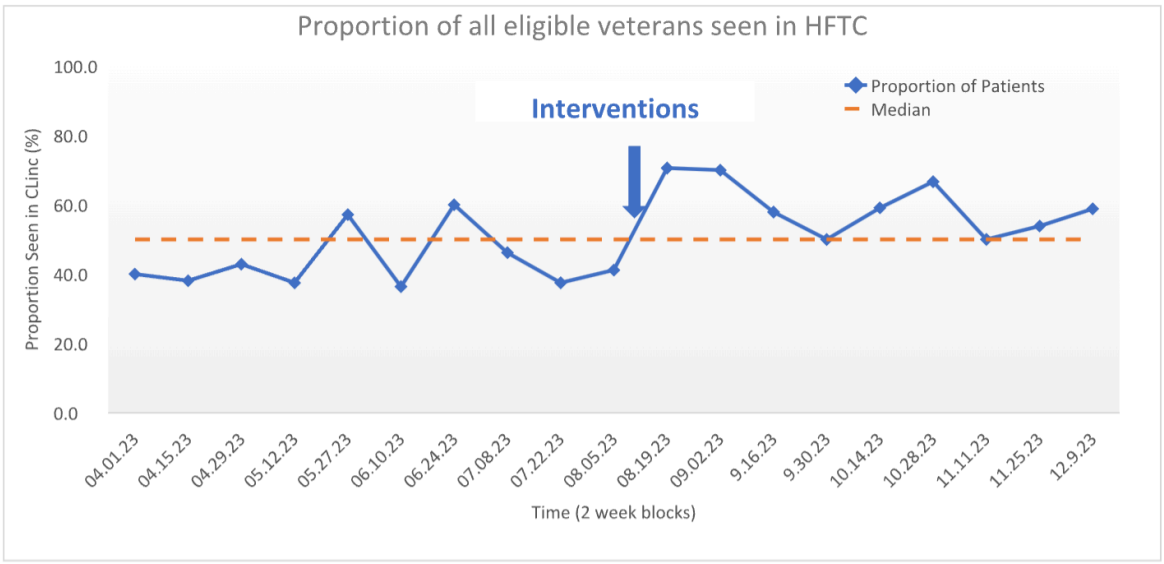


Figure 1. A run chart showing the proportion of eligible patients seen in the Heart Failure Transition Clinic per 2-week period. The overall median is 50.0%. The first cycle of interventions began 8/12/23 (blue arrow). Interventions implemented included: small group orientation sessions for resident and hospitalists, standardization and dissemination of the eligibility criteria, and standardization of the scheduling process. A shift, defined by the Institute of Healthcare Improvement, is present immediately following the interventions.

intervention. No significant changes were observed for the rate of clinic appointment attendance or clinic visits scheduled greater than 14 days after discharge.

Discussion and Conclusion: Overall, preliminary data demonstrate an increase in the proportion of eligible veterans seen in the HFTC. This effect appears to be mediated primarily through increased identification of eligible patients and improved scheduling rates for identified patients. Appointment attendance rates remained low. Future interventions are planned, including incorporating patient identification during daily multidisciplinary rounds and contacting scheduled patients post-discharge to remind them of their appointment. Additionally, we will evaluate 30-day CHF readmission rates in subsequent cycles.

1030 - QI In Breast Cancer Reconstruction With Handouts

Abstract 1030

Lead Author: Katie Cardenas, PA-C

Contributing Authors:

Category: Education

Background: Navigating breast reconstruction in the setting of breast cancer is a daunting and complex topic for both patients and providers. Patient preference, surgeon expertise, hospital policy, adjuvant therapy, and disease characteristics can all impact viable reconstructive options. At Ben Taub Hospital, the reconstructive process is further complicated by patient factors such as language barriers, advanced disease states, and population health demographics. Approaching breast consultations in clinic is challenging and time-consuming. New breast cancer patients are often confused by reconstruction options, frustrated with surgical timelines, and overwhelmed with reconstructive choices and implications.

Aim Statement/SMART Goal: This quality improvement project is intended to evaluate patient understanding of breast reconstruction after providing all newly diagnosed breast cancer patients with educational handouts. I hypothesize that visual in-office aids written in Spanish and English outlining 1) reconstructive options and 2) reconstructive timelines will improve patients' self-reported understanding of breast reconstruction.

Methods: Patients with newly diagnosed breast cancer who are being seen for the first time in Ben Taub Plastic Surgery Clinic will receive educational handouts based about breast reconstruction. Of note, hand-outs will not replace in-person counseling, but will utilized as an adjuvant tool. Following the end of the visit, the patient will be provided with a 4-question survey available in either English or Spanish. The aim of the survey will be to gauge understand of the reconstructive process after the visit. All question responses will be ranked on a Richter scale from "very well" to "somewhat well" to "not very well". Responses will be recorded in REDCAP. Patients will be asked to review the handouts at home, with the plan to contact the patient in 3 days – 2 weeks via phone. At this time, patients will be asked the same questions to evaluate if their understanding of the breast reconstructive process has improved based on their review of the handouts.

Results: RESULTS ARE CURRENTLY UNDER REVIEW.

Discussion and Conclusion: Tentative results show an improved understanding following use of hands outs, but results are still under review.

1031 - Improving Food Allergy Evaluation Through Decreased Use Of Multi-Food Allergy Panels At A Single Institution

Abstract # 1031

Lead Author: Diem-Tran Nguyen, MD

Contributing Authors: Vibha Szafron, Sasha Alvarado

Category: Patient Safety

Background: Immunoglobulin E (IgE) in vitro assays are widely used to evaluate food allergy (FA). While practice guidelines recommend targeted testing when pre-test probability is high, multi-food allergy panels (MFAPs) are widely marketed and frequently ordered. Unfortunately, food-specific IgE immunoassays have poor specificity, resulting in overdiagnosis of FA, unnecessary food avoidance, lower quality of life, increased financial burden, new onset FA, and malnutrition.

Aim Statement/SMART Goal: Utilizing educational sessions and electronic medical record (EMR) optimizations, we aim to decrease the number of MFAPs ordered by 50% over 6 months.

Methods: Our project is focused on outpatient MFAP orders at Texas Childrenâ€™s Hospital.

PDSA cycle 1: Conducted preliminary chart review of patients with MFAPs ordered in 2023 and distributed REDCap survey to ordering clinicians. Used baseline data for educational sessions presented in January 2024.

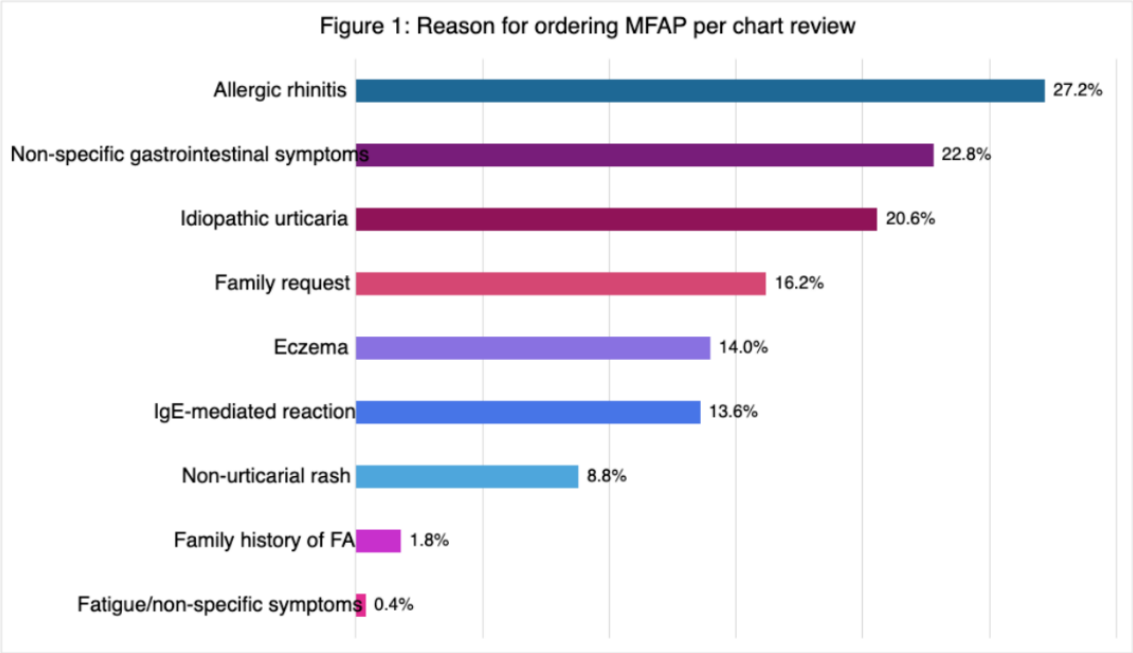
PDSA cycle 2: Distribute educational materials on FA to Texas Childrenâ€™s Pediatrics (TCP) and Allergy & Immunology (A&I) clinics.

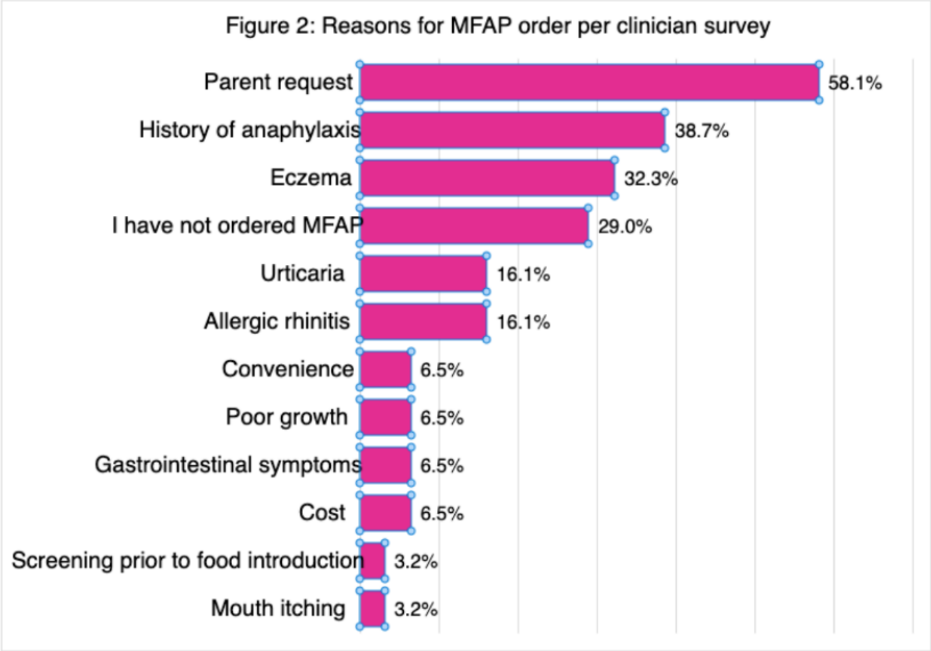
PDSA cycle 3: Modify EMR orders for MFAPs through collaboration with pathology department.

PDSA cycle 4: Present follow-up educational and Q&A sessions.

Results: In May 2023, 228 MFAPs were ordered. 94.7% were ordered by primary care providers. 72.6% of panels resulted in at least 1 abnormal flag. Most frequent positives were cowâ€™s milk (68.5%), egg (60.6%), and wheat (50.9%). 33% of MFAPs resulted in recommendation for food avoidance, but only 10% were prescribed epinephrine autoinjectors. Reasons for ordering MFAPs from chart review and clinician surveys are included in Figure 1 and 2, respectively. Survey

feedback identified a need for community resources to facilitate FA evaluation and early introduction. 120 participants attended our educational seminars.





Discussion and Conclusion: While IgE immunoassays can be helpful in FA work-up in situations with history of immediate hypersensitivity to food, indiscriminate usage of MFAPs carries greater risks than benefits. We will evaluate if frequency of ordered MFAPs decreases after educational sessions, resource provision, and EMR modifications. With these interventions, we will empower

clinicians to optimize FA evaluation, decrease harms from unnecessary food avoidance, and increase timely early food introduction.

1033 - Riddled With Holes: Improving Dexa Screening In Patients With Copd At Risk For Secondary Osteoporosis

Abstract 1033

Lead Author: Damini Saxena, MD

Contributing Authors: Neel Bhan, Sarah Jaroudi, Akhilesh Padhye

Category: Education

Background: The 2020 American Association of Clinical Endocrinologists' (AACE) guidelines recommend bone mineral density (BMD) testing in all peri- and postmenopausal patients over age 50 at risk for secondary osteoporosis[1]. Chronic obstructive pulmonary disease (COPD) is known to cause secondary osteoporosis1. Osteoporosis is as prevalent as 38% globally in patients with COPD[2]. The 2012 guidelines for osteoporosis screening in men also recommend BMD screening in all men over age 70 and younger men aged 50-69 with additional risk factors, such as COPD[3]. This recommendation is supported by other societies, such as the National Osteoporosis Foundation[4]. Despite these recommendations, screening for osteoporosis in eligible patients with COPD has been historically low in many retrospective studies[5-8].

Aim Statement/SMART Goal: Increase referrals for BMD screening via dual-energy x-ray absorptiometry (DEXA) scan by 20% in 3 months in Ben Taub pulmonary clinic patients with documented COPD or COPD/asthma overlap syndrome and age over 50 years.

Methods: We created a guide on screening for osteoporosis in patients over age 50 with COPD at Ben Taub hospital through literature review and expert consensus. We plan to educate Pulmonary fellows at Ben Taub in the contents of this guide in person, via email, and posters in Ben Taub Pulmonary Clinic. The number of DEXA referrals ordered will be tabulated before and 3 months after this intervention.

Results: Baseline data was collected from Ben Taub Pulmonary outpatient clinics. There were 31 patients with COPD aged over 50 years; of these, 4 had asthma/COPD overlap syndrome. Of the total cohort, 10 patients (32.3%) had DEXA screening ordered or completed. Only 11.1% of all tests were ordered by Pulmonologists.

Discussion and Conclusion: Despite recommendations from the AACE to screen for secondary osteoporosis in men and peri- and postmenopausal women with COPD over the age of 50 years, there has been a historical underscreening of these patients nationwide. This phenomenon is seen in Ben Taub Pulmonary clinics as well, increasing the risk for osteoporotic fractures in this population. The lack of screening may be explained by lack of knowledge. Education of Pulmonary fellows and attendings on appropriate screening is expected to increase referrals for DEXA screening, which may lead to increased diagnosis of osteoporosis and prevention of osteoporotic fractures.

1034 - Improving Long Term Follow Up Outcomes For Breast Cancer Chemoprevention In High-Risk Veteran Women

Abstract 1034

Lead Author: Hanqing (Kathy) Shang, MD

Contributing Authors: Sarah Ansari, Shweta Dhar, Mahdieh Irranejadparizi, Stacey Edwards; Jessica Honkomp; Meagan Siehr, Kimberly Pitts, Bethany Aiena; Mary Nikityn, Diana Bearden, Deleene Menefee, Sita Bushan

Category: Improvement Science

Background: The United State Preventive Services Taskforce (USPSTF) recommends that clinicians offer chemopreventive medications to women with an increased risk for breast cancer, based on risk models such as the Gail and Tyrer-Cuzick scores. However, a recent national survey shows that there are significant gaps in providing breast cancer prevention care amongst Veterans. The breast cancer prevention clinic (BCPC) at the Michael E DeBakey VA Medical Center is a multi-disciplinary telehealth clinic aimed at reducing breast cancer risk in high-risk female Veterans.

Aim Statement/SMART Goal: Increase the percentage of patients who continue to adhere to breast cancer chemoprevention or have documented reason for discontinuation one year after BCPC evaluation by 50% in the next two years.

Methods: Veterans age >=35 with Gail 5 year risk >= 1.7% or Tyrer-Cuzick 10 year risk >= 5% are referred to BCPC. At the telehealth visit, the medical oncologist makes individualized recommendations about chemoprevention by discussing the risks and benefits of therapy. Screening magnetic resonance imaging (MRI) is also recommended to women with lifetime Tyrer-Cuzick score > 20%. Patients then meet with a dietician to discuss nutrition modification, and a psychologist to address psychosocial barriers to lifestyle change. Those who start chemoprevention attend a 3 month follow-up with a nurse navigator to discuss tolerability and side effects. Subsequently, the patient's PCP continues management of chemoprevention and annual breast MRI.

Future proposed interventions to promote adherence to chemoprevention include providing patients with continued follow-up with the multidisciplinary team, education on breast cancer prevention to primary care providers, and dissemination of additional patient education materials.

Results: In 2022, 33 patients were seen in BCPC. While 13 patients were prescribed chemoprevention, 9 reported starting to take the medication at the 3-month follow-up. Six reported hot flashes, although only the majority had mild symptoms. Three reported weight gain and one reported vaginal dryness. Only 3 continued to fill the medication at the time of chart review in August 2023. Twenty patients did not initiate chemoprevention. Reasons included cardiovascular or thrombotic risk factors (4), concurrent use of hormone replacement therapy (3), plan for risk reducing mastectomies (2), and patient preference or concern for side effects (11).

Discussion and Conclusion: The unique interdisciplinary model of our breast cancer prevention clinic allows for a comprehensive and personalized evaluation for high-risk female Veterans on interventions to reduce their breast cancer risk. However, the current model does not ensure long-term compliance with these interventions. Future directions aim to improve chemoprevention adherence.

1035 - Vista: Targeting Diabetes-Related Lower Extremity Amputations Among Underrepresented Communities Through A Patient-Centered Multidisciplinary Approach

Abstract # 1035

Lead Author: Ilse Torres, MD

Contributing Authors: Cuneyt Koksoy, Nawar Hudefi, Jayer Chung, Gina Evans-Hudnall, Edward L. Poythress, Anita Rohra, Ramyar Gilani, Joseph L. Mills Sr

Category: Health Outcomes / Services Research

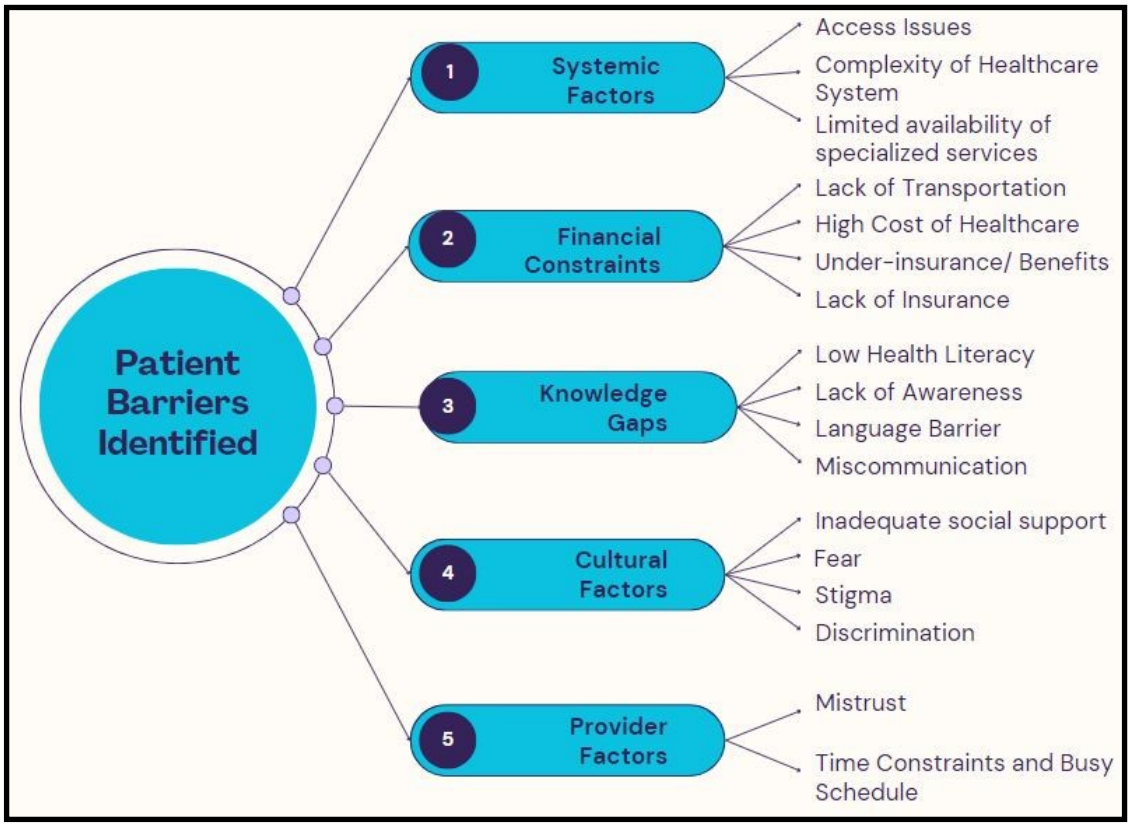
Background: Annually, over 1 million diabetes-related lower extremity amputations occur, with Diabetic Foot Ulcers (DFUs) and Diabetes-Related Infections (DFIs) accounting for 84% of cases. These complications disproportionately impact racial/ethnic minorities and low-income groups.

Aim Statement/SMART Goal: VISTA initiative was designed to work towards decreasing non-traumatic amputations in underserved communities by initially focusing on understanding drivers of major limb amputation for patients with severe diabetic foot infections needing treatment in a regional, county health care system.

Methods: From December 2021 to 2022, 101 patients admitted with DFU or DFI to Ben Taub Emergency Center (Harris County, Tx) were consecutively enrolled within 24 hours of admission either to a medical or general surgical service. Although there is an outpatient wound care center within the county health system, there is no coordinated inpatient limb salvage service due to budgetary and staffing limitations resulting in a lack of FTE for podiatry and vascular surgery. We implemented a multi-disciplinary evaluation process, including individual structured interviews and baseline needs assessment questionnaires. Patients were followed for three months post-discharge, with data collected on demographics, treatment methods, and mortality.

Results: The study included Hispanic (63.4%), Black (27.7%), and White (7.9%) patients, with a median age of 60 years. No significant age difference was noted between patients who subsequently maintained or lost their limbs. Of concern, 84% of patients reported dissatisfaction with their diabetic foot care and over half (51.5%) were uninsured. Hospital length of stay ranged from 4 to 14.5 days (mean 9.2). Initial treatment included toe/forefoot amputations (42 patients),

debridement (56 patients), and major (above or below knee) limb amputations (21 patients). A significant finding was an increase in major amputations, particularly below-knee, during the three-month follow-up period. Severe SVS WIfI ischemia (I3) and wound grades (W3) were predictive of increased risk of limb loss during the study. Numerous barriers to effective care were identified, including financial constraints, systemic issues, time and access limitations, knowledge gaps, and cultural and provider-related factors.



Discussion and Conclusion: VISTA findings underline the necessity to create a multidisciplinary team approach, a 'Toe and Flow' model to decrease Lower Limb Amputations due to DFU or DFI in marginalized, low-income minority groups. These insights will help to design a community-based awareness campaign to improve outpatient care accessibility and implement an internal systemic algorithm to promote limb salvage. The latter will require FTE and support for increased OR utilization for podiatric and vascular surgery services. Emphasis on patient education and healthcare providers' understanding of patients' unique situations will be crucial for success and community outreach.

1037 - Description Of An Independently-Developed Quality Assessment Tool To Meet Emergency Department Credentialing And Emergency Ultrasound Fellowship Accreditation Council Guidelines

Abstract # 1037

Lead Author: Michael Vu, MD

Contributing Authors: Richard Gordon, Sara Miller, Katheryn Larimore, Carrie Bakunas, Ryan Walsh, Victoria Morris, Benjamin Karfunkle

Category: Education

Background: Point of care ultrasound (POCUS) is essential to the practice of emergency medicine. Continuous quality management of a POCUS program is essential for credentialing, risk management, and tailored educational interventions. Quality management should include quality assessment (QA), focusing on review of an individual clinician's use of ultrasound, and quality improvement (QI), providing timely feedback to clinicians based on QA findings. Programs such as the Clinical Ultrasound Accreditation Program developed by the American College of Emergency Physicians and the Emergency Ultrasound Fellowship Accreditation Council (EUFAC) outline QA and QI goals for POCUS programs, but significant logistical barriers to meeting these benchmarks exist such as lack of interoperability between hospital systems. Multiple commercial software solutions exist to streamline this process but may not be accessible to all programs.

Aim Statement/SMART Goal: The authors aimed to develop a robust, hospital-agnostic, HIPAA-compliant solution to these specific QA/QI barriers using the Google Drive platform that can be reproduced at other institutions to meet local needs.

Methods: An electronic QA database was developed using Google Sheets and Google Forms which has the capability to retrieve reviewed ultrasound studies by specific criteria including scanning clinician, type of scan, and QA reviewer disagreement with interpretation. The database was inspected for trends of reviewer disagreement that led to targeted feedback and education at the department level. It was also used to satisfy QA review requirements for EUFAC fellows during their training.

2	Exam Types															
3	FAST	Basic Echo	Advanced Echo	Lung	Biliary	Renal	Vascular Access	AAA	DVT	Soft Tissue	MSK	Occular	GI	MaleGU	Female GU	
4	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
5	Agree with Scanner's interpretation?										Cool Scans Only					
6	Yes	No		By Scanner	By Attending		Start Date	End Date			☐					
7	☐	☑														
8																Exclude Educational
9																☐
10	Red cells are hiding formula stuff, mess with them at your own risk															
11	Count:	68	390		17.44%											55

	MRN	Date of scan	Scanner	Attending	Exam type	Interpretation feedback	Agree with scanners interpretation?	True/False Pos/Neg	Educational Scan?
13		7/19/2021			FAST	Concern for missed left thoracic fluid above spleen in patient with left shoulder pain	No	False Negative	Clinical Scan
14		10/20/2021			FAST	you saw the double line sign in the ruq	No	False Positive	
15		10/27/2021			FAST, Basic Echo	Need better views to confidently determine EF	No	False Positive	Clinical Scan
16		12/4/2021			FAST		No	True Negative	Clinical Scan
17		12/18/2021			FAST		No	False Positive	Clinical Scan
18		1/1/2022			FAST		No	False Positive	Clinical Scan
19		2/21/2022			FAST		Not documented	Technically Limited Study	Clinical Scan
20		3/9/2022			FAST		No	Technically Limited Study	Clinical Scan
21		3/28/2022			FAST	no free fluid in limited views, no pericardial effusion	Not documented	Technically Limited Study	
22		4/3/2022			FAST, Basic Echo		Not documented	Not documented	Clinical Scan
23		4/8/2022			FAST	negative eFAST	Not documented	Not documented	
24		4/17/2022			FAST		Not documented	True Negative	Clinical Scan
25		4/22/2022			FAST		Not documented	Not documented	
26		4/30/2022			FAST, Biliary		Not documented	Not documented	Clinical Scan

Results: This POCUS QA system has been in continuous use with our academic emergency medicine group since July 2021. In the 2.5-year span since deployment, 2742 studies have undergone QA review out of approximately 15,000 studies performed (18.3%). Reviewers disagreed with some portion of the interpretation in 848 (24.8%) exams. Disagreement was most common for abdominal aortic aneurysm evaluation (n = 45 exams, 31.1%) and basic echocardiography (n = 1203 exams, 27.9%). Disagreement was least common for Male GU exams (n = 19 exams, 0% disagreement) and advanced echocardiograms (n=57, 15.8% disagreement), likely reflecting operator experience.

Review of these 2742 studies resulted in 209 (7.6%) instances of timely, direct email contact with feedback for the clinicians who performed the studies and has resulted in targeted department-level education in consistently deficient areas.

QA Reviewer Disagreement Totals				
	Total	% of total	Disagree	% disagree
FAST	389	11.39%	90	23.14%
Basic Echo	1203	35.24%	336	27.93%
Advanced Echo	57	1.67%	9	15.79%
Lung	404	11.83%	101	25.00%
Biliary	345	10.11%	87	25.22%
Renal	242	7.09%	55	22.73%
Vascular Access	33	0.97%	9	27.27%
AAA	45	1.32%	14	31.11%
DVT	51	1.49%	13	25.49%
Soft Tissue	115	3.37%	30	26.09%
MSK	47	1.38%	9	19.15%
Ocular	63	1.85%	15	23.81%
GI	31	0.91%	7	22.58%
MaleGU	19	0.56%	0	0.00%
Female GU	370	10.84%	73	19.73%
Total exams	3414	100.00%	848	24.84%

Discussion and Conclusion: We present our lightweight user-friendly alternative to commercial POCUS QA solutions that has led to targeted clinician feedback and additional department-level education while also satisfying accreditation requirements.

1038 - Improving Triage And Care For Metabolic Dysfunction-Associated Steatotic Liver Disease At A VA Hospital

Abstract # 1038

Lead Author: Andres Urias Rivera, MD

Contributing Authors: Kaitlyn Carlson, Kamal Hirani, Wendy Podany, Lindsay Vaclavik, Molly Horstman, Jennifer Kramer, Fasiha Kanwal, Avegail Flores, Scott Larson

Category: Quality, Cost, Value

Background: In the United States, Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD, formerly Non-Alcoholic Fatty Liver Disease) affects 30% of the population and is the leading cause of liver disease. In 2021, the Veterans Health Administration released consensus guidelines for the care of MASLD that included recommendations for triage using the Fib-4 score and management.

Aim Statement/SMART Goal: We implemented an interprofessional quality improvement project to enhance compliance with consensus guidelines for MALSD at our local VA facility. Our goal is to improve the diagnosis and management of MASLD by assessing current practices, identifying gaps in care, and implementing targeted interventions. We aim to improve rates of referrals to diet and exercise programs by 10% two months post intervention.

Methods: We performed a process analysis using chart review and interviews with providers to understand the current state of MASLD care at this VA. We created a process map which describes the ideal process. We chart reviewed 100 patients diagnosed with MASLD or MASH (using ICD-10 codes), without alcohol use disorder, that received care at the local VA primary care clinic since June 2023.

Results: The results of our process analysis show significant gaps in care for MASLD patients. The population reviewed skewed strongly white (88%) and male (91%), reflecting the demographics of the VA population. 11% of eligible patients have documentation of risk stratification with the Fib-4 score in primary care notes. 13% have been referred to a diet and exercise program. 49% have been assessed for immunity to viral hepatitis. We assessed compliance with consensus guidelines and identified key gaps in care for patients with MASLD. Based on the process analysis, we designed interventions to improve compliance that include a

tool for risk stratification using the Fib-4 score and a primary care order set with recommended MASLD care. We also created a new hepatology consult option tailored to MASLD patients with elevated fibrosis scores. We carried out primary care provider education to increase awareness of this condition, consensus guideline-directed management, and the tools we created.

Discussion and Conclusion: At this VA, MASLD is under-treated as per the consensus guidelines, under-triaged with the Fib-4 score, and under-referred to hepatology care. We designed interventions to improve MASLD treatment, triage and referral and are tracking ongoing compliance with guidelines. Next steps for future Plan-Do-Study-Act cycles include automated clinical reminders for at-risk patients, patient education on MASLD, and further process analysis of MASLD management options at this VA.

1039 - Standardization Of Single Ventricle Inter-Stage Patient Echocardiogram Reports

Abstract # 1039

Lead Author: BriAnna Souder, DO

Contributing Authors: Lisa Tocco, Aura Sanchez Mejia, Anitha Parthiban, Candice Vacher, Allyson Doucet, Shreya Sheth

Category: Quality, Cost, Value

Background: Infants undergoing repairs for single-ventricle congenital heart disease have the highest risk of morbidity and mortality between their first and second palliative operations. This period is known as the “inter-stage” period, and can confer a mortality risk as high as 15%. Our center noted two separate sentinel events in this patient population over a short period of time. On review, one area of opportunity was in communication of subtle but progressive changes in echocardiographic (echo) findings over the months leading up the events. These patients require frequent monitoring with echocardiograms (as frequently as weekly) so subtle changes from week to week can be difficult to appreciate over time, and historic comparison previously required time-consuming review of several past studies. We created a reporting template to provide relevant historical echo findings easily to the clinicians caring for these fragile patients.

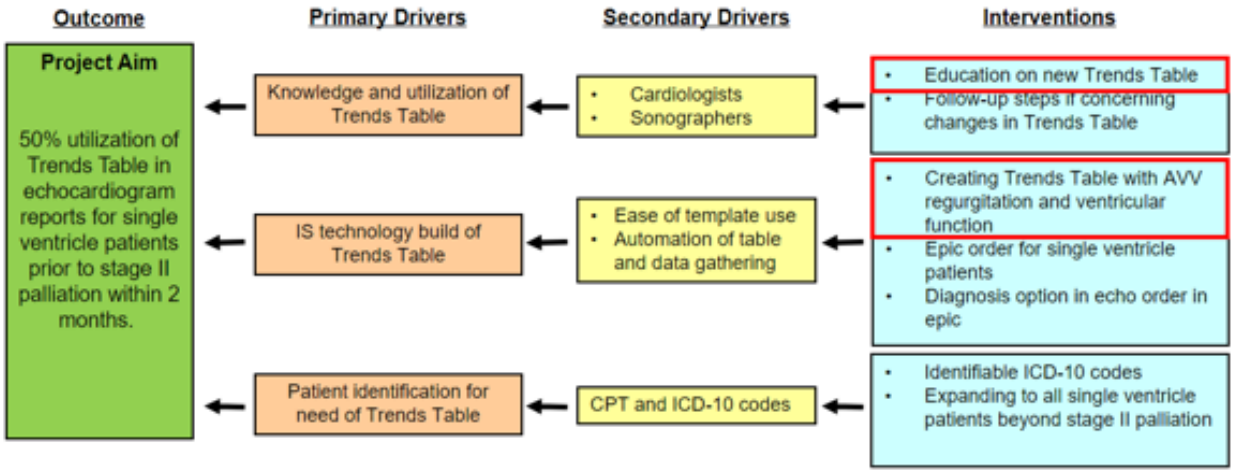
Aim Statement/SMART Goal: We will implement an echocardiogram trends table in high-risk cardiac patients (single ventricle inter-stage) with a goal of 50% utilization within the first two months of initiation.

Methods: Measures

- Process measures: education participation (sonographers and reading physicians) + pre-survey completion
- Outcome measure: Utilization of trends table in echocardiogram report
- Balancing measures: Number of echocardiograms performed, and clinical team reception to table (post-survey)
- Interventions/Cycles:
  - Cycle 1: Intervention/Do
    - Education to sonographers and reading physicians
    - Pre-surveys sent

- Finalized table template- went live on October 11,2023
- “Go-Live” flyers posted in the echo lab and sent via email
- Post-surveys sent 2 weeks after Go-Live date

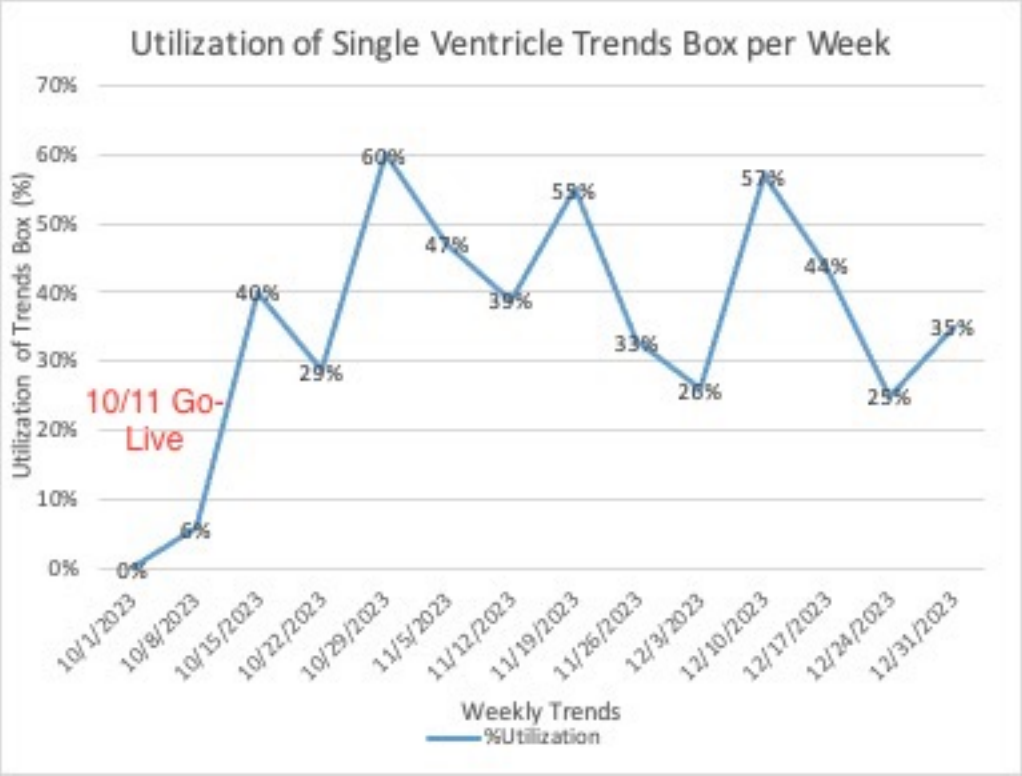
- Cycle 2: Interventions/Do
  - Build copy-forward trends table
  - Re-educate sonographers and physicians to changes to table/reminders
  - Go-Live 1/12/24



Results:

- Process measures:
  - 56% sonographer education attendance and 45% for echo reading physicians.
  - 34% completed pre-survey and 10% post-survey completion (combined sonographers and reading physicians)

- Outcome measures: Utilization was calculated by comparing the number of single ventricle “inter-stage” patients that had an echocardiogram completed to the number that had the single ventricle trends table present in their echo reports. From week to week, there was great variability in utilization; anywhere from 25% to 60%. (Run chart below)
- Balancing measures: No significant change to number of echoes ordered for this patient population since initiation.
  - Care team survey: 50% knew about the table and all felt positive regarding impacting patient care.



Discussion and Conclusion: We have learned that it takes time to gain consensus among the reading physicians, sonographers, and the report building team (those involved in creation of the table). The barriers to project implementation included the time it took to build the template, and access to the medical records data. The clinical teams caring for this patient population report satisfaction with the table, and that it contributes positively to patient care. We have recently addressed a flaw that was not allowing the information to be copied forward from report to report, which should positively affect utilization rates. This project will transition to the echo lab quality improvement team once in the sustain period. We hope this can expand into all single ventricle patients beyond the inter-stage period (past stage II and stage III palliative surgeries) and potentially into other cardiac defects.

1041 - Pediatric Rheumatology "Graduation": A One-Way Bridge To Adult Care?

Abstract # 1041

Lead Author: Kyla Fergason, BA

Contributing Authors: Miriah Gillispie-Taylor, Tiphanie Vogel, David McDonald, Jimin Kim, Karissa Chesky, Kristiana Nasto

Category: Health Outcomes / Services Research

Background: The transition from pediatric to adult healthcare is difficult for many patients with childhood-onset disease, often resulting in lapses in care and increased disease activity and morbidity. Measures have been instituted in the Texas Children's Hospital pediatric rheumatology clinic to improve preparedness for transfer to adult rheumatology including introduction of a policy, tracking eligible patients, using a transition planning tool, and self-assessment of preparedness. To help emphasize the care transfer event, we have instituted a formal acknowledgment for patients at the last pediatric visit, which includes finalization of a transition summary letter given to the patient to help prevent loss of information when establishing care with adult rheumatology.

Aim Statement/SMART Goal: We aimed to acknowledge at least 90% of patients transitioning from rheumatology clinic at Texas Children's Hospital to adult healthcare, marked by a transition summary letter, between February 2023 to January 2024.

Methods: Emails were sent to providers, initially biweekly then weekly, identifying all transition-age patients and reminding providers to discuss transition. Those ages 17 and older were emphasized, given their more imminent transfer of care to adult rheumatology. Retrospective review of the electronic health record (EHR) was used to assess transition status. Patients were grouped by those who had a scheduled appointment with an adult rheumatologist and a transition summary letter, those whose pediatric provider identified the visit as the final pediatric visit but did not create a transition summary letter, and those for whom specific transfer of care was still pending. We also tracked whether the provider documented discussing transition during the visit.

Results: From February 2023 to January 2024, 834 potential final pediatric visits were identified, 481 (57.6%) of notes documented discussion of transition at the visit, and a total of 87 patients were identified as ready to transition. Of those, 67 patients (77%) received a summary letter.

Discussion and Conclusion: Patients often experience a lapse of care as they transition from pediatric to adult rheumatology. We continue to build on transition pathway work conducted within pediatric rheumatology in order to help provide a sense of closure and consolidate information for adult providers. Since the institution of this initiative, 77% of eligible patients have received a transition summary, which should help prevent loss of information between adult and pediatric providers. Additional opportunities include continuing to work toward our aim and following patients longitudinally to assess the impact of this intervention on the successful transfer of care.

1042 - Improving Patient Access And Satisfaction At A Multidisciplinary Complex Care Wound Clinic

Abstract # 1042

Lead Author: Kylie Wakefield, PA-C

Contributing Authors: Ankhi Dutta, Ryan Kranosky, Jeanette McMullen, Heather Moore, Sarah Thompson

Category: Quality, Cost, Value

Background: Complex wounds often require multiple subspecialists, many clinic/hospital visits, and specialized wound dressings to ensure proper healing . The complexity of these types of wounds does not only pose a challenge to the healthcare team, but also to the patient and their families. Our background electronic medical data revealed that for a patient with complex wound (with underlying complex medical conditions like spina bifida or cerebral palsy) required approximately 8 appointments/patient. Of the pilot 14 patients with complex medical conditions and chronic wound evaluated, each patient required an average of 0.56-3.08 appointments/month. Total time required for all clinic (including complex care, infectious diseases, physical medicine and rehabilitation and nutrition) appointments throughout the month (excluding travel time/parking) was 4 hours 50 minutes. The percentage of cancellations/reschedules was high. Our goal of this QI study was to create a multidisciplinary complex care clinic at one of our community campus locations to reduce the number of appointments for the patients to improve access/compliance and patient satisfaction.

Aim Statement/SMART Goal: The SMART aim of the study was to consolidate the care of patients (accessibility/compliance and satisfaction) with complex medical conditions and a chronic wound by 25% between August 2023- December 2023

Methods: We identified a pilot group of 14 patients who were seen in multiple subspecialty clinics across the three campuses at TCH who had the greatest need to consolidate care. Our outcome measures were 1) To reduce the number of the appointments of each patient by 25% between August 2023 through Dec 2023 through coordinated appointments with with complex care, therapy, PMR, wound care and infectious diseases specialists. Process measure was to reduce the total amount of time spent in clinic by 25% between August 2023-Dec 2023. Our balance measure was patient satisfaction scores. Our PDSA cycles included educating nurses, providers and therapists about wound care needs, time management, creating a visible board with check

lists and needs of the patient/families, reevaluating needs with leadership so make changes promptly.

Results: The complex care wound clinic started at the Woodlands campus in July 2023. Between August 2023-December 2023, the number of appointments was reduced from 117 to 54 for the 14 patients (Average appt per patient 3.8 from 8 per patient). Similarly average amount of time per patient in clinic was reduced from 4 hours 50 minutes to an average of 2 hours 7 minutes. The no-show improved from 5 per month to zero in these months. Cancellations/rescheduling rates was also improved, with 87.5% of cancelled appointments rescheduled versus 66% of cancellations/reschedules preintervention.

Discussion and Conclusion: The creation of the multidisciplinary wound care clinic significantly improved appointment times and clinic times for the most complex wound care patients in the system. It also reduced cancellation rates and increased patient satisfaction. We plan to expand the clinic to other complex care patients in other locations to improve access to care, patient compliance. WE are currently in the process of evaluating clinical metrics (eg. clinical change in wounds, clinical changes in medical condition) and cost analyses to evaluate if the multidisciplinary approach improves health care value and quality.

1043 - Quality Improvement Project To Improve Rabies Vaccine Access And Delivery At The Infectious Diseases Clinic

Abstract # 1043

Lead Author: Ankhi Dutta MD, MPH

Contributing Authors: Megan James, Michelle Velasco, Valerie Morgera, Margaret Taylor, Catherine Foster, Galit Holzman-Pazgal, Lucila Marquez

Category: Quality, Cost, Value

Background: Rabies remains a global public health concern, accounting for 59,000 human deaths worldwide. In the United States, human cases are rare with only 1-3 cases reported annually. This is mainly due to extensive public health efforts in animal control, public health education and vaccination programs. Post Exposure Prophylaxis (PEP) for rabies includes wound cleansing followed by 1 dose of human rabies immunoglobulin (HRIG) and a series of cell culture rabies vaccine doses on D0, D3, D7 and D14. Barriers affecting rabies PEP in the United States include lack of access to rabies vaccination, coordination of care and costs. Due to the lack of challenges in availability, access and coordination, most of the rabies vaccination is performed in the Emergency Centers (ECs). Barriers faced by patients in the EC, include increased wait times, costs and lack of appropriate referral or follow up coordination. Our primary goal was to develop a streamlined process at TCH to ensure vaccine is easily accessible, timely and cost effective.

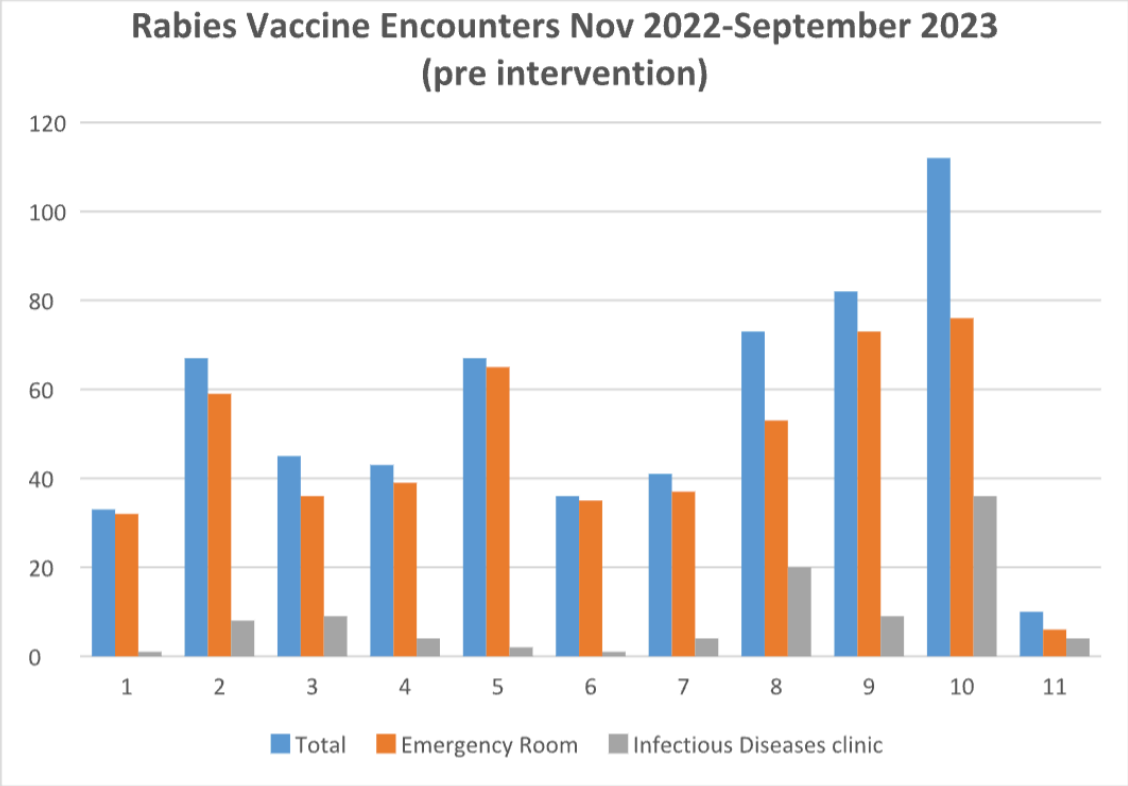
Aim Statement/SMART Goal: Our SMART AIM was to develop a streamlined process at TCH to ensure PEP rabies vaccine referrals from the EC and delivery is increased in the infectious diseases clinic by 25% from November 2023- May 2023

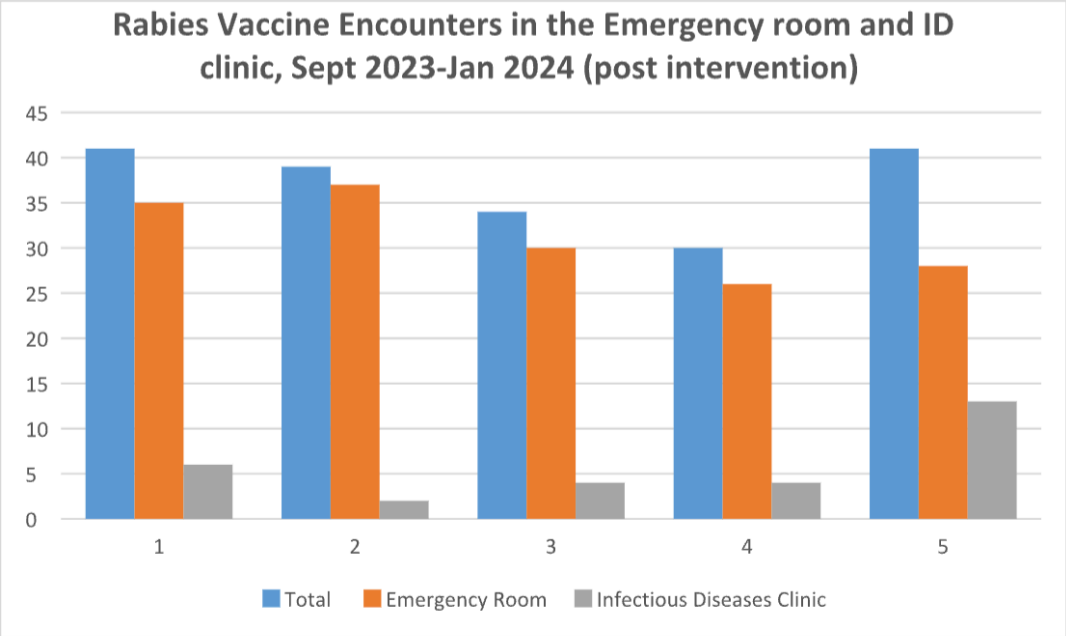
Additional Objectives (optional):

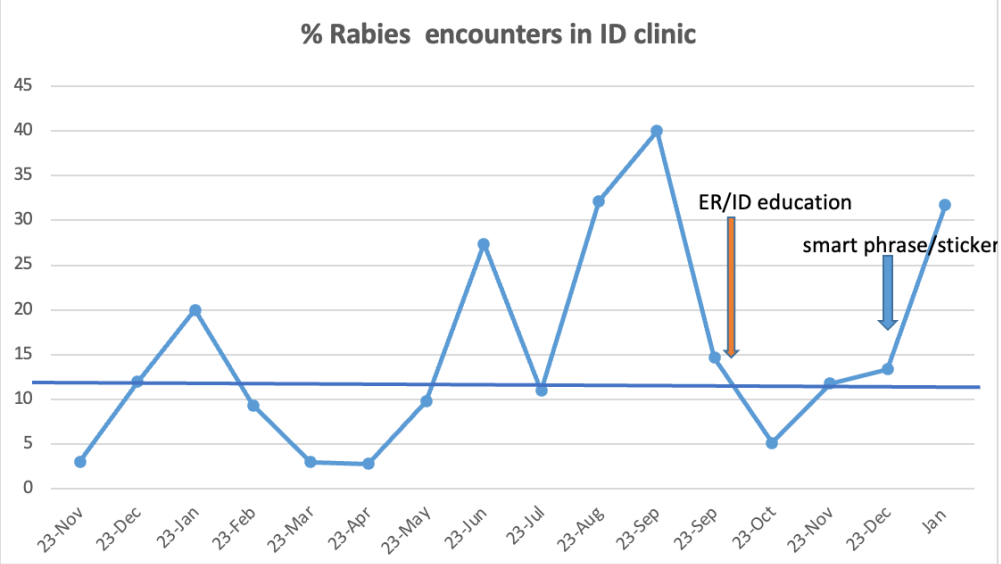
Methods: Outcome measure was to increase the total number of patient encounters for rabies vaccination at the ID clinic across the three campuses at TCH, by 25% in 3 months . Process measure included 1) Increase the number of referrals placed to ID by EC on first encounter by 25% in 3 months. 2) Increase the percentage of patients seen in ID clinic for all subsequent doses. Balance measures include patient satisfaction scores Fishbone and process map is attached. PDSA cycles include education of the EC and ID providers/nurses across the campuses, pharmacy and nursing leads, standardized epic order set, smartphrase for appropriate rabies

vaccine dosing/timing, ID clinic referral numbers for families and rabies vaccine education for families. Balance measure will include surveys to evaluate patient satisfaction with the process.

Results: Figure 1 and Figure 2 represents the number of patients seen in the Emergency room and Infectious diseases clinic pre and post intervention. Figure 5 represents the percentage of patients seen in ID clinic pre and post intervention. Balance measures is being evaluated and data is not currently available at the time of abstract submission.







Discussion and Conclusion: We have not achieved our 25% increase in rabies vaccine encounter in the ID clinic overall but have seen an increase in patients seen in ID clinic in the month of January by 18.4%. Several PDSA cycles are ongoing including an epic inbuilt order set, improved EC and family education to help facilitate this process.

1046 - Using Updated Monitoring Devices To Improve Intraoperative Endotracheal Tube Cuff Pressures At Baylor-St. Luke's Medical Center

Abstract # 1046

Lead Author: Rishi Wagle, BS

Contributing Authors: Christopher Huynh, Anvinh Nguyen, Casey Fitzgerald

Category: Patient Safety

Background: When a patient is intubated with an endotracheal tube (ETT), the tube's cuff is inflated which allows air only to pass through the tube. The recommended range for cuff pressure is 20-30 cm H2O. If cuff pressure lies outside this range, numerous complications can occur including tracheal stenosis, tracheal rupture, or aspiration. Therefore, ensuring cuff pressures fall in the recommended range is important to avoid iatrogenic harm to surgical patients at Baylor-St. Luke's Medical Center (BSLMC). This project was funded by a BSLMC Accelerating Clinical Excellence (ACE) Grant.

Aim Statement/SMART Goal: Achieve >50% compliance of intraoperative ETT cuff pressures of between 20-30 cm H2O and bring average ETT cuff pressures down to less than 50 cm H2O by Mar. 1, 2024, in the BSLMC operating rooms.

Methods: Preliminary data identified a lack of devices to monitor ETT cuff pressures as a limiting factor for why current cuff pressures at BSLMC are outside the recommended range. Therefore, funding from the ACE Grant was used to purchase additional cuff pressure monitoring devices. The devices purchased were AG Cuffill Manometers (AGCMs) which are user-friendly and cheaper than the Posey Cufflator Monitors that were previously present.

Pre-intervention data (i.e. ETT cuff pressures) were collected using an AGCM in the main operating rooms of BSLMC from December 4 to December 22, 2023. Additional AGCMs (50) and portable containers for the devices were purchased on December 27, 2023. At the monthly BSLMC anesthesiology staff meeting on January 31, 2024, the project was introduced, instructions for manometer usage were provided, and goals were discussed. 20 manometers and containers were placed for use in 20 BSLMC main operating rooms on February 2, 2024. Green tape was placed on each manometer with instructions indicating to avoid disposal. Post-intervention data will be collected during the month of February.

Results: Pre-intervention data collection found that average ETT cuff pressure in BSLMC main operating rooms was 57.4 cm H2O (SD = 23.5, n = 71). Of the 71 sample cuff pressures measured, 3 (4.23%) were within the recommended range of 20-30 cm H2O.

Discussion and Conclusion: ETT cuff pressures are important for anesthesiologists to monitor given the potential negative consequences to the patient's airway if cuff pressures are outside the recommended range. Ensuring an adequate supply of devices to measure cuff pressures should be of significant consideration throughout a healthcare system. Future plans include implementation of AGCMs in the cardiovascular operating rooms of the Texas Heart Institute within BSLMC.

1047 - A Pragmatic Implementation Trial Of Artificial Intelligence During Colonoscopy At Ben Taub Hospital

Abstract # 1047

Lead Author: Anthony Xu, MD

Contributing Authors: Vanessa Catania, Loan Ho, Jordan Sparkman, Robert J. Sealock

Category: Health Outcomes / Services Research

Background: Colon cancer is currently the second leading cause of cancer-related deaths worldwide. Colonoscopy is both diagnostic and preventative for colon cancer; removal of pre-cancerous polyps decreases the risk of developing colon cancer. The incorporation of artificial intelligence (AI) in colonoscopy is an emerging tool to increase the adenoma detection rate (ADR) and polyp detection rate (PDR). It may also help identify a subset of polyps, sessile serrated lesions (SSLs), which are more difficult to visualize.

Aim Statement/SMART Goal: Improve the ADR, PDR and SSL detection rate at Ben Taub Hospital by 5% by the end of October 2023.

Methods: We collected patient demographic data and pathologic data on all colonoscopies performed one year before and after implementation of AI device (GI Genus). Clinical practice proceeded normally without any research intervention, the use of the GI Genius device was left up to the discretion of the endoscopist. All colonoscopies, regardless of indication, performed at Ben Taub hospital between November 1st 2021 and October 31st 2023 were potentially eligible. We excluded incomplete colonoscopies and colonoscopies with inadequate prep. For patients who underwent more than 1 colonoscopy during the 24 month study period, only the first colonoscopy or first colonoscopy with polypectomy was counted.

Results: Based on run chart analysis, there is a significant increase in ADR, PDR, and SSLs detection rate after implementation of the GI Genius. We performed t-test and found that PDR, ADR and SSL detection rates increased from 38.7% to 50.1%, 31.5% to 39.1% and 3.5% to 4.1% respectively, with p-values<0.001. Benign tissue detection rates increased from 3.03% to 4.06% after AI implementation but was not statistically significant (p=0.118). We performed univariate and multivariate logistic regression on the ADR and SSL detection rates. Both ADR and SSL detection rates were significantly higher after AI implementation than prior with an odds ratio of 1.3 (95% CI

1.13-1.50) and 3.08 (95% CI 1.93-4.93) even after controlling for other variables such as age, sex, Boston Bowel Prep Score, and FIT positive indication.

Discussion and Conclusion: Previous studies have shown that rates of interval colorectal cancer declined with increasing ADR and SSL detection rates. There are varied efforts to improve ADR and SSL detection, and one emerging technique is using AI devices during colonoscopy. Our results suggest that the implementation of an AI detection device in a real world setting with primarily gastroenterology trainees improves ADR, PDR, and SSL detection rates without significantly increasing removal of benign tissue.

1048 - Examining Lung Cancer Staging Outcomes 3-Years After Implementation Of A Centralized Lung Cancer Screening Program Within The MEDVAMC

Abstract # 1048

Lead Author: Juan Paulo Gonzales, BS

Contributing Authors: Rommel Gonzales, Stephen Bujarski, Caitlin Bennet

Category: Health Outcomes / Services Research

Background: Lung cancer accounts for 12% of all new cases of cancers in 2023 but accounts for 21% of all cancer deaths. Annual lung cancer screening (LCS) among high-risk populations using low-dose computed tomography (LDCT) is proven to reduce mortality from lung cancer and is recommended (Grade B) by the U.S. Preventive Task Force (USPTF). Prior to 2021, LCS in MEDVAMC was decentralized i.e., screening was performed by primary care and pulmonary providers on an ad hoc basis, which also resulted in a large number of scans performed inappropriately. In June of 2021, a centralized consult based LCS program was established in MEDVAMC adhering to USPTF LCS guidelines.

Aim Statement/SMART Goal: The goal of this paper is to determine if the centralized consult model approach to LCS, as opposed to decentralized screening, had resulted in a stage shift in diagnosis of lung cancer among high0risk veterans of MEDVAMC after 3 years of implementation.

Methods: Cancer registry data of all newly diagnosed non-small cell lung cancers and their staging from the past 10 years was collected through MEDVAMC records. Statistical testing will be performed to determine any change in proportion of early stage versus late stage diagnoses of non-small cell lung cancers before and after the implementation of the LCS program.

Results: *Results pending at time of abstract submission*

Discussion and Conclusion: *Conclusions pending at time of abstract submission*

1049 - Expanding the Use Of The Insulin Order Set To Vascular Surgery Admitting Service At Michael E DeBakey VA Medical Center

Abstract # 1049

Lead Author: Jeanette Girard, DO

Contributing Authors: Madhuri Vasudevan, Addison Taylor

Category: Patient Safety

Background: Inpatient hyperglycemia is associated with increased morbidity, mortality and length of hospital stay. At the Michael E Debakey VA Medical Center (MEDVAMC) we currently utilize an updated insulin order set that facilitates basal-bolus or basal plus sliding scale insulin regimens. This insulin order set was initially analyzed in patients admitted to medicine care line services. Having established its usability and safety, we now propose increasing access of the updated insulin order set to patients admitted to the vascular surgery inpatient service.

Aim Statement/SMART Goal: The goal of this project is to increase the number of vascular surgery patients that receive guideline directed insulin therapy during hospitalization. To achieve this, we plan to educate providers about inpatient diabetes management that includes basal/bolus insulin regimens, to expand access of the order set to patients admitted to the inpatient vascular surgery service and finally, to assess the utilization rate of the updated insulin order set. Our SMART AIM: The percentage of patients with diabetes prescribed insulin in the pre-operative outpatient setting and are admitted for > 48 hours to the vascular surgery service at MEDVAMC on insulin from the order set will increase from by 20% within the first 3 months.

Methods: We provided education to vascular surgery ordering providers in the form of a power point slide presentation and a handout describing the updated insulin order set and the importance of guideline directed inpatient diabetes management relating to both to patient safety and clinical outcomes. We then requested the computer applications coordinators to grant access of the updated insulin order to vascular surgery ordering providers. Finally, we plan to monitor the utilization rate of the updated insulin order set as our primary outcome. Our process measures include the percent of blood glucose values within the range 70-180 mg/dL and the percent of blood glucose values above 180 mg/dL. In addition, we plan to collect the percent of blood glucose values below 70 mg/dL as a balancing measure.

Results: Order set initiated on 2/1/2024 with preliminary data expected to be available by April 2024.

Discussion and Conclusion: Order set initiated on 2/1/2024 with preliminary data expected to be available by April 2024.

1050 - Optimizing Blood Pressure Monitoring: Enhancing Accuracy With Automated Office Blood Pressure (AOBP) In A General Medicine Clinic

Abstract # 1050

Lead Author: Matthew Yang, MD

Contributing Authors: Olubunmi Oladunjoye, Afreen Ali, Rifa Dhuka, Ryan Thomas, Isabel Valdez, Saundra Nguyen , Daniel R. Murphy

Category: Population and Public Health

Background: Hypertension is one of the most important risk factors for coronary artery disease and cerebrovascular disease. Over 100 million US adults are diagnosed with hypertension, and over 40% take medications to control their blood pressure (BP). To effectively monitor and treat hypertension, accurate measurement is critical. However, factors such as white coat syndrome and variations in staff expertise and technique can greatly impact readings. Automated office blood pressure (AOBP) use offers a method to improve accuracy and consistency while obtaining in-clinic BP readings.

Aim Statement/SMART Goal: Achieve a 5% increase over 6 months in the proportion of Baylor McNair General Medicine patients with controlled blood pressure (less than 140/90) among all patients seen in the clinic.

Methods: The study was conducted at Baylor McNair General Medicine Clinic with specific providers who agreed to participate in this trial. Clinical staff obtained initial blood pressure using an existing standardized clinic protocol. If BP was greater than 140/90, AOBP was placed on the patients of participating providers. Clinical staff then instructed patients to sit in silence, turned the blood pressure monitor screen away from the patient, and started the AOBP, which would automatically obtain three blood pressure readings at two and half minute intervals. The staff then returned to the room after 8 minutes to record all three blood pressure readings.

If blood pressure remained elevated after interval monitoring, the provider was notified. Unless specified otherwise by the provider, staff automatically scheduled patients with uncontrolled readings for a two-week follow-up visit before leaving the office.

Results: The proportion of patients with controlled blood pressure increased from 68% (baseline data obtained from November 28, 2023 to December 8, 2023) to 72% during the preliminary trial run from December 11th, 2023 to December 15th, 2023. During this trial period, we encountered several challenges, including protocol adherence, rooming delays, and AOPB machine alarms causing distractions to patients, which have subsequently been addressed.

Discussion and Conclusion: Despite challenges during implementation, we observed a 4% increase in the proportion of controlled blood pressure using the new protocol compared to the standard protocol. Further work aims to address implementation challenges and refine the protocol to yield further improvements in blood pressure readings. Additionally, we plan to expand the implementation to additional providers and collect longer-term data.

1051 - Placenta Accreta Spectrum Disorder Risk Screening Assessment

Abstract # 1051

Lead Author: Matthew Mitts, DO

Contributing Authors: Lauren Taylor, Efua Leke, April Adams

Category: Patient Safety

Background: Placenta accreta spectrum disorder (PASD) is a leading cause of morbidity and mortality during pregnancy, often requiring a multidisciplinary team to execute a complex and potentially morbid surgery to save the life of both mother and fetus. These risks are heightened when an unforeseen case of placenta accreta arises. The establishment of regional Maternal Levels of care for standardization of risk-appropriate care sought to create new guidelines for the screening and management of placenta accreta spectrum disorder (PASD). These rules require level IV hospitals such as Ben Taub Hospital to have a placenta accreta spectrum disorder multidisciplinary care team, to complete a risk factor assessment to screen, evaluate, diagnose, consult, and manage patients with anticipated or unanticipated placenta accreta spectrum disorder.

Aim Statement/SMART Goal: Improve recognition of PASD with the implementation of a standardized screening tool to identify patients at risk for PASD and decrease the rate of unexpected PASD cases at time of delivery.

Methods: Risk factors associated with PASD were identified and then stratified into categories based on the percent risk association. These risk categories were then associated with a management algorithm, tailored to the unit's resources. This information was then incorporated into an Epic smart phrase which was integrated into the H&P for all patients admitted to labor and delivery. An educational module of the process was then created and presented to the members of the obstetrics care team in varied settings (townhalls, didactic lectures, routine communication, embedded in a required simulation module) to improve the implementation of the screening tool.

Results: The PASD risk stratification tool was implemented on 2/1/2023. The average compliance with risk screening during the study period, Feb – Dec 2023 was 76%, with a low of 58% in July and a high of 92% in November. Overall, most patients screened were deemed low risk. In total, 7

PASD cases occurred during the study period, 3 of which were unplanned with a PASD risk stratification score of low or medium risk.

Discussion and Conclusion: Overall, the PASD risk screening tool has increased awareness of patients at risk for PASD with the correct identification of greater than half of all PASD cases that occurred during the study period. Further research is needed to determine if additional risk factors may improve the sensitivity of the screening tool and if patient outcomes have improved given recognition from the screening tool.

1052 - Bridging Care Gaps: Improving Social Determinants Of Health (SDOH) Assessments In Neurology

Abstract # 1052

Lead Author: Mikael Guzman Karlsson, MD PhD

Contributing Authors: Ethan Edmondson, Brooke Evans, Charles Gay, Shannon DiCarlo

Category: Quality, Cost, Value

Background: Social determinants of health (SDOH) refer to various factors influencing health outcomes among populations, such as socioeconomic status, employment, education, neighborhood, and physical environment. Food insecurity is a significant concern in Texas, with a 2022 USDA study indicating that 15.5% of families experience food insecurity, ranking second in the nation. This is particularly relevant in neurological care, as emerging data suggests that SDOHs are the main drivers of inequities in neurologic diseases and outcomes. However, the current screening rates in neurology are insufficient, highlighting a gap in identifying and addressing these crucial health determinants.

Aim Statement/SMART Goal: Our quality improvement (QI) initiative aims to enhance SDOH screening and resource connectivity in pediatric neurology, aiming for a 50% improvement in screening rates and successful resource referrals within one year.

Methods: The QI initiative targeted the pediatric neurology resident clinic at Texas Children's Hospital's Main Campus. We first performed a survey-based problem analysis of neurology clinicians to assess barriers to SDOH screening and counseling. We adopted a multidisciplinary approach, using medical assistants to administer Hunger Vital Signs-based questionnaires and track responses in our electronic medical record (EMR). We used FindHelp.org modules within the EMR to streamline counseling, complemented by smart phrases designed to enhance neurology resident workflow efficiency. Outcome measures included percentages of SDOH screenings and successful referrals. Process measures covered staff training and EMR tool usage. Balance measures assessed the frequency of social work referrals and the impact on staff workload, ensuring the intervention's sustainability.

Results: The problem analysis identified time constraints, lack of training, unclear protocols, and inadequate tools as critical barriers to SDOH screening and counseling. Since initiation, routine

SDOH screening rates have increased by 30%, with ~20% of patients screening positive for food insecurity.

Discussion and Conclusion: Our QI work provides a framework to provide neurologists with the knowledge and skills for efficient and effective SDOH screening and counseling. Future research will explore the longitudinal impact of SDOH access to neurologic care, healthcare utilization, neurologic disease management, and patient outcomes.

1053 - Bridging The Gap: Addressing Disparities In Healthcare Literacy Through Education And Technology

Abstract # 1053

Lead Author: Michael Xie MD student

Contributing Authors: Madeleine Cluck, Shreya Jain, Ananth Panchamukhi, Livia Frost, Pallavi Krishnarao, Hal Haoshuang Zhang, Yuriko Fukuta, Lindsey Cauthen, E. Lee Poythress

Category: Health Outcomes / Services Research

Background: Lower levels of health literacy have been linked to worse health outcomes and higher healthcare costs. Patients with diabetic foot ulcers (DFU) at the Ben Taub Osteomyelitis Wound Clinic (BTOWC) often are low-income and underrepresented minorities, factors associated with low health literacy. Health Literacy + Innovation for Positive Patient Outcomes (HIPPO) is a preexisting digital platform that provides multimedia educational resources for patients; however, its use in DFU has never been assessed.

Aim Statement/SMART Goal: This study aims to evaluate whether HIPPO utilization is able to improve clinical outcomes of DFU through enhanced patient understanding and compliance as measured by subjective and objective assessments.

Methods: This is an open-label, randomized controlled study consisting of 2 phases. Adult DFU patients newly referred to BTOWC from February 2023 were enrolled. In phase 1, patients were randomized 1:1 to either receive education utilizing HIPPO application or standard education. The HIPPO application included 7 multilingual instructional videos and graphical illustrations, and patients were to use HIPPO 3 times. All wounds were assessed using the WIFI (wound, ischemia, and foot infection) score. Then, BTOWC therapists measured wound healing. Subjective and objective assessments were completed, and the treatment group provided feedback about the HIPPO application at 6 weeks post-visit. Interim analysis was performed, and the HIPPO application was modified after phase 1. In phase 2, the effectiveness of the modified HIPPO application will be assessed.

Results: Eighty-four patients enrolled in phase 1, and 8 patients withdrew. Thirty-six patients were assigned to treatment group and 40 to control group. There were no significant differences in patient baseline characteristics. HIPPO group patients watched the videos about 75% of the time. Wound closure rates at 6 weeks were 20.0% in treatment group and 10.3% in control group

(p=.330), and, at 3 months, were 54.5% in treatment group and 34.6% in control group (p=.244). More than 90% of patients in both groups reported good subjective understanding (p=1.000). BTOWC therapists reported 90.6% in treatment group and 97.2% in control group were following dressing change instructions (p=0.336). In treatment group, 86.7% felt HIPPO was too basic, and 86.7% felt more illustrations would help.

Discussion and Conclusion: Phase 1 analysis showed HIPPO utilization might improve DFU clinical outcomes, though it was not statistically significant. The effectiveness of modified HIPPO utilization will be assessed in Phase 2.

1054 - Implementing A Multidisciplinary Mortality Review Process To Improve Outcomes

Abstract # 1054

Lead Author: Brittany Backstrom MSN, MBA, RN-BC, CEN, CPHQ

Contributing Authors: Daniela Carcano

Category: Quality, Cost, Value

Background: In recent years, the organization faced challenges with the mortality index not meeting goal of < 1 in an observed: expected (O: E) ratio. An opportunity for a formal mortality review process was identified. Mortality cases had been reviewed in multiple forums by several different departments without a structure in place to bring forth any quality of care (QOC) concerns and the ability to track and trend data.

Aim Statement/SMART Goal: To decrease the average number of patients below relative expected mortality by 15% in 12 months.

Methods: Building a foundation of structure, the organization implemented a monthly Mortality Committee in August 2022. The process is initiated with every mortality being reviewed for QOC concerns by a registered nurse. If any QOC concerns are noted, a second level review is requested. After each case is coded, it is put through the Vizient mortality risk model which shows relative expected mortality on admission. If the case falls below the threshold and the patient was not expected to expire, this case is escalated for review in the Mortality Committee. The Mortality Committee is comprised of physicians, nurses, coding, clinical documentation improvement specialists, clinical quality analytics, and quality. The review process allows for robust discussion to identify trends, performance improvement opportunities, documentation improvement opportunities and provide guidance to the clinicians.

Results: The committee was able to achieve four months of lower observed mortality than expected within its first year. In addition to reviewing relative expected mortality, the committee examines chart documentation. The year prior to initiating the review process, August 2021 to July 2022, the hospital averaged 6.25 patients falling below relative expected mortality monthly. After initiation of the review process, August 2022 to July 2023, the hospital averaged 2.75 patients falling below relative expected mortality monthly.

Discussion and Conclusion: When reviewing QOC, a theme of increased need for hospice resources was discussed. This identified opportunity has led to organizational discussions on additional options available in the hospice care space. In addition, reviewing documentation is vital when utilizing the Vizient mortality risk model. This risk model is comprised of several different model groups and variables that are captured on admission by coding. Utilizing this model as a guide, it allows the opportunity to provide guidance and improve admission documentation to ensure all patient conditions are captured. Overall, the committee has been able to identify and address care delivery and documentation opportunities to ensure our patients are receiving optimal care.

1055 - OB Scripts: In-Situ Simulation And Checklist Implementation On The L&D Unit

Abstract # 1055

Lead Author: Lauren Taylor, MD

Contributing Authors: Matthew Mitts, April Adams, Efua Leke

Category: Quality, Cost, Value

Background: Teamwork and communication are critical elements of high-quality patient safety. Simulations and checklists are tools that can help standardize care, improve communication, and assist teams in optimizing performance and quality improvement. Traditional education using these modalities may only occur several times annually, which may not be sufficiently impactful in teaching environments with large and dynamic teams, such as the labor and delivery (L&D) unit. Integrating these modalities into the daily L&D workflow in a succinct fashion can allow for improved familiarity with the roles and necessary processes for managing obstetric emergencies.

Aim Statement/SMART Goal: To improve recognition of and response to common obstetric emergencies and to enhance interdisciplinary team communication through recurring in-situ simulation and check-list review.

Methods: Common obstetric emergencies (including maternal sepsis, postpartum hemorrhage, eclampsia, maternal code, and shoulder dystocia) were reviewed, and scripts were created, delineating the roles of multidisciplinary responders (including nursing, obstetrics, anesthesia, and pediatrics) for each emergency. The scripts were designed to align with the unit's established practice guidelines for management of each scenario, and associated checklists were also included within the script. Review of a scenario script and its associated checklist was imbedded within the routine L&D unit multidisciplinary morning and evening huddles each weekday. Representatives of the nursing staff, residents (including obstetrics, anesthesia, family medicine, and pediatrics trainees), nurse midwifery , obstetric and anesthesia faculty members participated in the review of the scripts, according to their assigned roles. Obstetric score card measures and severe maternal mortality (SMM) secondary to related outcomes were compared pre- and post-implementation.

Results: Scripts and checklists were developed for five obstetric emergencies. Beginning 1/9/2023, the in-situ simulations were performed in rotational fashion, with good uptake by the

teams. The rate of obstetric hemorrhage was 15.12 (2022, pre-implementation) vs 14.69 (2023, post-implementation). Accordingly, SMM among the hemorrhage population was 33.96% (2022) vs. 30.46% (2023). SMM among hypertensive population was 13.67% (2022) vs 13.07% (2023). Finally, SMM among all patients was 6.18% (2022) vs 5.41% (2023).

Discussion and Conclusion: Overall, the in-situ simulations were feasibly incorporated and have received excellent participation by multidisciplinary staff and trainees Trends in obstetric score cards are additionally promising, particularly with respect to improved recognition of and management of postpartum hemorrhage. The Next steps of this project will aim to better evaluate the impact of these simulations and assess knowledge retention of staff over time. Furthermore, development of additional scripts is ongoing to incorporate more obstetric emergencies.

1058 - Improving Access To Care: Teaching Ultrasound Guided Intravenous Access To Emergency Nurses

Abstract # 1058

Lead Author: Briona Butcher, MD

Contributing Authors: Sara Andrabi, Shant Pezeshkian

Category: Education

Background: Teaching nurses how to perform ultrasound-guided IV (USIV) insertions is important because it increases the accuracy of IV placement, reduces the risk of complications and enhances patient safety and experience. Ultrasound guidance allows nurses to increase the likelihood of successful first-attempt IV insertions, decreasing the consumption of medical supplies, saving costs and resources for healthcare facilities. Ultrasound-guided IV insertion facilitates quicker and more accurate access to veins, especially in patients with challenging vascular access. Improved efficiency contributes to timely medical interventions, crucial in the emergency setting. Training in ultrasound-guided IV insertion enhances nurses' skill sets, allowing physicians to redirect their attention to more critical matters and maintain flow in the emergency department (ED).

Aim Statement/SMART Goal: To provide competency training in ultrasound guided IV placement to 5-10 nurses on an annual basis in the Ben Taub Emergency Center.

Methods: There was an interest among nurses to participate in an USIV education class after polling staff and discussion with nursing leadership. We adapted skills and knowledge focus from USIV course for EM residents. The comprehensive curriculum covered essential topics of ultrasound-guided IV insertion. A class composed of didactics and hands on simulation was conducted by third year EM residents and facilitated by ED leadership. Class sizes were capped to ensure each participant got to practice USIV training. Participants took pre and posttests to demonstrate knowledge. Answers to the test were discussed at the end of the course. At the end of each session, feedback was gathered from participants to improve future iterations of the class.

Results: Initial findings revealed that 11% exhibited an exceedingly high level of confidence, 33% expressed a moderate level of confidence, and 13% lacked confidence entirely. Following the completion of the course, noteworthy improvements were observed. Post-training, 20% of

participants reported an exceptional level of confidence, 31% indicated a moderate level of confidence, and there was a notable absence (0%) of individuals expressing no confidence at all. Furthermore, a discernible enhancement was noted in participants' knowledge and assurance pertaining to the identification of landmarks, selection of appropriate probes, accurate measurement of vessel depth, and, notably, the confidence to proficiently execute an ultrasound-guided intravenous procedure in a secure and hygienic manner.

Discussion and Conclusion: Teaching nurses how to perform ultrasound-guided IV insertions is crucial for improving patient outcomes, optimizing healthcare resources, and empowering nurses with valuable skills in modern healthcare settings.

1059 - Serial Assessment Of Self-Reported Transition Readiness Within A Large Pediatric Rheumatology Clinic

Abstract # 1059

Lead Author: Karissa Chesky, BS

Contributing Authors: Jimin Kim, Kyla Fergason, David McDonald, Kristiana Nasto, Miriah Gillispie-Taylor, Tiphanie Vogel

Category: Health Outcomes / Services Research

Background: Adolescents with chronic health conditions deserve an intentional transition process from pediatric to adult care to minimize poor health outcomes. We have developed a longitudinal process to standardize transfer of care of adolescent rheumatology patients from pediatric to adult providers, including periodic assessment of patient self-reported transition readiness using the validated Adolescent Assessment of Preparation for Transition (ADAPT) survey. Here, we compare serial ADAPT scores to evaluate self-assessed transition readiness over time.

Aim Statement/SMART Goal: To increase self-reported transition readiness composite scores among patients with childhood-onset rheumatic disease between initial and subsequent ADAPT surveys, measured from 2018 to 2023.

Methods: Return rheumatology patients age 14-19 years, regardless of underlying diagnosis, were surveyed using the ADAPT survey via email from 2018-2021 (initial legacy surveys) and moving to electronic health record (EHR) from 2021-2023 (subsequent surveys). Composite ADAPT scores (out of 100) for self-management (C1), prescription drug management (C2), and transfer planning (C3) were scored and compared between earliest available and most recent surveys. Paired t-tests were used to compare composite scores.

Results: We identified 78 patients with a legacy survey and paired ADAPT composite scores from a subsequent survey. The median age of respondents at the initial survey was 15.2 years [IQR 14.5-16.3], and it was 17.8 years [IQR 17-18.6] at the most recent survey, leading to an average time of 2.8 years between the initial and most recent ADAPT scores. The average C1 score (n=73) for respondents' initial survey was 73.6±28.2 and for the most recent survey was 58.6±33.1, representing a significant decrease (p=0.008). The average C2 score (n=36) for respondents' initial survey (68.5±21) was not different from the most recent survey score (71.3±28.9; p=0.68). The

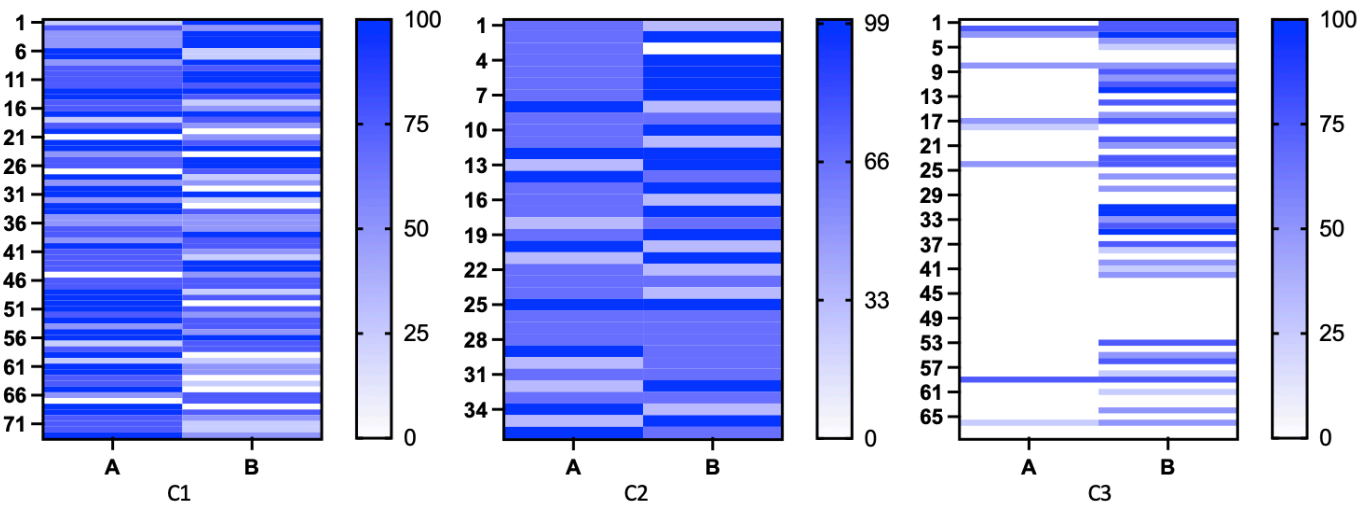


Figure 1: Changes in composite scores between earliest available and most recent surveys.

average C3 score (n=68) for respondents' initial survey was 5.9±17.3 and for the most recent survey was 34.2±35.6 representing a significant increase ($p<0.0001$).

Discussion and Conclusion: We have demonstrated a significant improvement in transfer planning (C3) from initial to subsequent surveys as patients age. High baseline C2 scores (prescription management) resulted in no change in this score with time, which suggests clinic providers are regularly addressing prescription drug management among patients of all ages. There was an unanticipated decrease in self-management (C1) scores between initial and subsequent surveys. Moving forward, we will investigate reasons, such as space and time during clinic visits or patient's underlying diagnosis, for this decrease to improve all aspects of self-reported transition readiness over time.

1060 - Identification Of Incidental Vision-Threatening Diseases On Screening Diabetic Retinopathy: Perspectives From Harris Health Primary Care Clinics

Abstract # 1060

Lead Author: Sung In Kim-Vences MD, MPH

Contributing Authors: Jacqueline Hirth, Indumathi Kuncharapu

Category: Health Outcomes / Services Research

Background: While diabetic retinopathy (DR) remains the leading cause of blindness among diabetics, glaucoma and cataracts are also estimated to occur two- to five-times more commonly in diabetics. To date, however, both the American Diabetes Association (ADA) and the United States Preventive Services Task Force (USPSTF) report insufficient evidence to support screening for conditions other than DR. As Harris Health primary care clinics utilize an automated retinal image evaluation technology called Intelligent Retinal Imaging System (IRIS) that also reports “incidental” findings, we sought to quantify the frequency of non-DR, vision-threatening conditions among diabetics undergoing screening DR scans.

Aim Statement/SMART Goal: (1) Identify the frequency of incidental conditions (namely glaucoma, cataracts, and AMD, which are the leading causes of blindness worldwide) among IRIS scans performed between Jan 2022 and Feb 2023 at HHS primary care clinics.

(2) Identify subgroups of patients at highest risk of glaucoma, cataracts, and AMD that may benefit from additional evaluation.

Methods: Electronic health records with screening retinal scan data results from patients over 40 years with diabetes between Jan 31, 2022 and Feb 1, 2023 at the HHS primary care clinics were used for analysis. Frequency of incidental suspected cataracts, glaucoma, and AMD was calculated and compared by sex, age group (40-65 vs 65+ years old), and race/ethnicity using the Chi square test.

Results: Of 7,623 retinal scans, 2,738 (35.9%) were flagged for abnormal findings. Most common findings included suspected glaucoma (5.0%), suspected cataracts (4.1%), and suspected AMD (2.3%), which occurred at higher frequencies than DR (1.2%). Most patients were between 40-65 years of age (82.8%) and identified as Hispanic (47.6%). All three conditions were more common

among patients aged 65+ years ($p<0.001$ for cataracts, $p = 0.03$ for glaucoma, and $p<0.001$ for AMD). Frequency of glaucoma varied significantly by race/ethnicity ($p<0.001$) with the highest prevalence observed among Blacks (22.3%).

Discussion and Conclusion: Incidental findings of glaucoma, cataracts, and AMD were common in screening DR scans. Additional analysis will address identification of high risk groups can help assess the cost effectiveness and benefits of added screening in these subgroups. While IRIS has not been validated for non-DR detection, using IRIS to screen for common ophthalmologic conditions may be a reasonable alternative to no screening in limited resource settings.

1061 - Advanced Care Planning In A Multidisciplinary Amyotrophic Lateral Sclerosis Clinic

Abstract # 1061

Lead Author: Minh Nguyen, MD

Contributing Authors: James Orengo, Astrid Grouls

Category: Quality, Cost, Value

Background: Patients with amyotrophic lateral sclerosis (ALS) have unique care needs that can lead to conversations about percutaneous gastrostomy (PEG) and tracheostomy (trach) relatively early in disease trajectory. Advance Care Planning (ACP) provides an organized, systematic method of effectively communicating and documenting patient goals and preferences during ALS management, but documentation of ACP in the ALS population is consistently relatively low, around 30%. Outpatient palliative care engagement of ALS patients over multiple visits has been shown to substantially increase rates of advance directive completion.

Aim Statement/SMART Goal: Discuss the effectiveness of integrated palliative care and social work to increase rates of ACP completion in a multidisciplinary, urban ALS clinic.

Methods: In May 2023, a palliative care physician and social worker were added as standard parts of the multidisciplinary team at the Baylor College of Medicine ALS clinic. This included the addition of routine discussion in the clinic huddle of ACP documentation completion. Chart review was performed from clinic dates of September 2022 through September 2023 to document the initial impact on rates of ACP documentation.

Results: Of the 61 patients seen at the ALS clinic from September 2022 through September 2023, 33% of patients (20/61) saw either a palliative care physician or social worker, of which 100% had documented ACP discussions. While the overall ACP discussion documentation rate in patients who saw a neurologist alone (41/61) was 66%, this number improved from 55% to 81% following the addition of the palliative care physician and social worker to the multidisciplinary team.

Discussion and Conclusion: Integration of a palliative care physician and social worker to the ALS care team increased rates of ACP discussion and completion in multiple aspects, including advance directive, out of hospital DNR, and medical power of attorney. While all patients who met

with palliative care and social work received ACP discussion, the increase in rates of ACP discussion in patients who saw neurologists alone following the introduction of palliative care and social work suggests that the introduction of team members who focus more on effective ACP discussion and documentation may have an influence on the rest of the multidisciplinary care team. Future research is necessary to determine the long-term effect of increased ACP discussion on ALS patient outcomes.

1062 - Timely Delivery Of PORT For Head And Neck Squamous Cell Carcinoma In A County Hospital

Abstract # 1062

Lead Author: David Hernandez, MD

Contributing Authors: Ana Maria Rosas Herrera, Angela Haskins, Pavan Jhaveri, Quillan Huang, Alexander Hanania, Christina Chapman

Category: Health Outcomes / Services Research

Background: Head and Neck Oncology now has a quality metric to initiate post-operative radiation therapy (PORT) within 6 weeks (or 42 days) from the date of surgery for surgically treated head and neck squamous cell carcinoma patients that require adjuvant radiation. The American College of Surgeons (ACS) and the Commission on Cancer (CoC) put this into effect in 2022. While this directive has been long held as part of the National Comprehensive Cancer Network (NCCN) guidelines, now treating physicians have a new incentive to deliver timely treatment for their patients.

Aim Statement/SMART Goal: The objective of this study was to compare the rate of post-operative radiation therapy (PORT) initiation within 6 weeks for head and neck squamous cell carcinoma patients treated at a safety net, academic institution for patients treated between 2019-2021 versus those treated in 2022 after implementation of a new clinical pathway.

Methods: A retrospective case-control study was performed at a single tertiary care, safety net, academic institution. Patient demographics, tumor characteristics, dates of surgery and other treatment dates were collected from the electronic medical record. The time from surgery to PORT was calculated. Patients that started radiation treatment within 42 days of surgery were regarded as having started PORT on time. The demographics, tumor characteristics and rate of timely PORT for the two cohorts of patients were compared.

Results: From 2018-2021, our rate of PORT initiation within 6 weeks of surgery was 12% (n=57). In 2022, our rate of timely PORT was 88% (n=16), $p<0.5$. Patient demographics and characteristics were similar with the exception of marital status and use of free flap reconstruction. The 2022 cohort was more likely to be single ($p<0.5$) and all patients underwent free flap reconstruction in 2022 ($p<0.05$).

Discussion and Conclusion: Early referrals, frequent communication, and use of a secure registry was the key to the success found by our group despite the socioeconomic challenges of our underserved, safety-net hospital patient population. The changes made at our institution should serve as a template for other institutions seeking to improve the quality of care for their HNSCC patients.