TWENTY-SECOND ANNUAL

Institute for Medical Education

Education Research Day

Abstracts

Tuesday, April 22, 2025, 10 am – 4 pm

Icahn School of Medicine at Mount Sinai

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EDUCATION RESEARCH DAY 2025

Welcome to the Institute for Medical Education (IME) at the Icahn School of Medicine's twenty-second annual Education Research Day (ERD). It is exciting to see the breadth of innovative medical education scholarship developed by our faculty, trainees, students and staff. Each year we welcome an expanding group of educators from all disciplines and levels of training. We are proud to display the excellent work being done in education research across the Mount Sinai Health System.

There are three goals for ERD:

To highlight and disseminate the educational research and innovative curriculum development at Mount Sinai and its affiliate institutions.

To provide a forum for educators to learn from each other and collaborate.

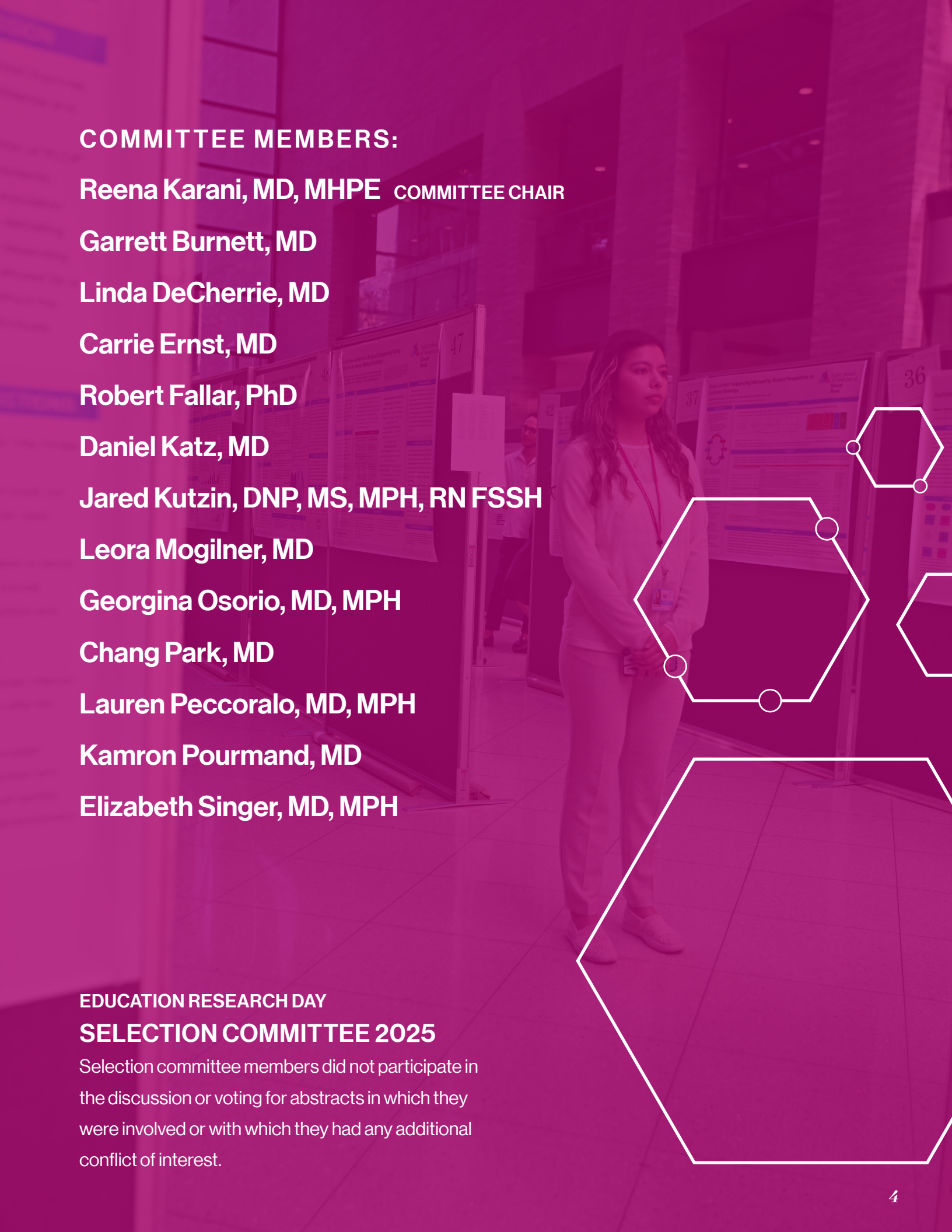
To prepare authors for regional and national presentation and dissemination of their scholarly educational work.

All submitted abstracts were reviewed by a selection committee. Abstracts were blinded and evaluated based upon established criteria for scholarship in education: Clear Goals, Appropriate Methods, Measures of Quality/Effectiveness, Significant Results and Reflective Critique. Innovation and impact of the project were also considered.

This year, four abstracts were chosen from the 64 submitted abstracts to receive Blue Ribbons. Blue Ribbon Winners represent outstanding examples of educational scholarship.

We wish to thank the Selection Committee, the Department of Medical Education, and the authors who submitted their work. Congratulations to all of our authors for their dedication to education research and for sharing their innovative work with our community.

Reena Karani, MD, MHPE
Director, Institute for Medical Education
Icahn School of Medicine at Mount Sinai



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EDUCATION RESEARCH DAY

SELECTION COMMITTEE 2025

Selection committee members did not participate in the discussion or voting for abstracts in which they were involved or with which they had any additional conflict of interest.

THIS YEAR, 64 ABSTRACTS WERE SUBMITTED BY FACULTY, STUDENTS, TRAINEES AND STAFF ACROSS THE HEALTH SYSTEM.

All abstracts were reviewed by the 2025 ERD Selection Committee. Of the 64 submissions, four abstracts have been awarded Blue Ribbons as outstanding examples of educational scholarship.

Please join us in congratulating the 2025 Blue Ribbon recipients:

ABSTRACT #2
UTILIZING A LARGE LANGUAGE MODEL FOR USMLE PREPARATION VIA GENERATIVE AI
Nate Ji, Ramone Brown, Julian Javier, Josh Kim, Reginald Brewster

ABSTRACT #8
TEACHING AN OLD RAT (RESIDENT AS TEACHER) NEW TRICKS: TRANSFORMING THE PEDIATRIC RESIDENCY TEACHING ELECTIVE EXPERIENCE
Brooke G. Weinberg, Conor Gruber, Jennifer Gillen, Leora Mogilner, Jan Fune

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NEAR-PEER FACILITATED MOCK ORAL BOARDS AT EMERGENCY MEDICINE RESIDENCY CASE CONFERENCE
Elizabeth Yim, Jeena Moss, Edward Diaz, Christopher Richardson

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A MULTIDISCIPLINARY APPROACH TO REDUCING HOSPITAL ACQUIRED PRESSURE INJURIES IN INTENSIVE CARE UNITS
Aesha Patel, Jorge Sinclair De Frias, James Salonia, Amanda Zotte, Sarah Costigan


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Artifical Intelligence

POSTERS 1-2

ABSTRACT #1

EVALUATING CHATGPT'S RELIABILITY AS A REVIEWER OF PLASTIC SURGERY LORS: A PILOT STUDY

Brittany Sacks, Bernice Z. Yu, Jacquelyn Roth, Peter Taub

PURPOSE AND GOALS: Letters of recommendation (LORs) are integral to residency selection, yet evaluation requires human review which can be subjective and inconsistent. Tools that support standardization may also serve as valuable educational resources—teaching faculty, trainees, and selection committees how to recognize strong letter elements. The authors examined whether a large language model (LLM), ChatGPT, could approximate faculty ratings of LORs for plastic surgery applicants, with a focus on considering its potential as an educational tool for reviewers.

METHODS: Ten de-identified plastic surgery LORs were rated on a five-point Likert scale (1=Do not interview, 2=Unlikely to interview, 3=First off the waitlist, 4=Interview if space, 5=Definitely interview) by four plastic surgery attending human faculty reviewers and four independent ChatGPT sessions.

EVALUATION PLAN: Descriptive statistics were calculated. Pearson and Spearman correlations assessed associations between ChatGPT and human scores, and a paired t-test evaluated mean differences.

SUMMARY OF RESULTS: ChatGPT's ratings ranged from 2.75–5.00, and humans' ratings ranged from 3.00–5.00. ChatGPT and human average scores correlated moderately ($r=0.58$, $p=0.07$), and no statistically significant difference in mean scores was observed ($p=0.31$). While there were variations across the individual ChatGPT reviews, these results suggest aggregated ChatGPT ratings replicate faculty rating patterns reasonably well.

REFLECTIVE CRITIQUE: The present pilot study demonstrates that ChatGPT or another LLM may be able to approximate faculty ratings for LOR evaluations, paving way for AI-driven interventions in the plastic surgery applicant selection process. ChatGPT's ability to generate ratings may aid in training new reviewers, providing additional perspective on candidates, and highlighting key letter attributes. Larger-scale studies are needed to validate AI's role in standardizing LOR evaluations and its potential utility as an instructional resource for faculty reviewers in residency selection.

ABSTRACT #2

UTILIZING A LARGE LANGUAGE MODEL FOR USMLE PREPARATION VIA GENERATIVE AI

Nate Ji, Ramone Brown, Julian Javier, Josh Kim, Reginald Brewster

PURPOSE AND GOALS: Artificial intelligence (AI) large language models (LLMs), such as ChatGPT, have great potential to be leveraged for medical education. Recent versions of ChatGPT-4 answered nearly 90% of questions correctly on all three steps of the United States Medical Licensing Exam (USMLE) and generated significant insights in 90% of explanations for answer choices. This highlights the potential for medical students to learn from LLM-generated output. Study materials for USMLE STEP exams can be prohibitively costly for many medical students. We hypothesize that LLMs can be trained to generate high-quality practice questions for STEP exam preparation and aim to demonstrate a proof-of-concept model in this study.

METHODS: MedQA, an open-domain question answering (OpenQA) dataset, was utilized for this study. The open- source large language model (LLM) Meta Llama 3.1 8B Instinct Turbo was leveraged to generate new questions and answer explanations. We coded an interface that prompts users to input specific topics for each practice question- solving session. Meta Llama then performs a search within the MedQA database for questions related to these topics, and uses those existing practice questions as examples to generate new questions.

EVALUATION PLAN: AI-generated questions were evaluated for quality using NBME's five general rules for one best answer items. We also added two additional rules for evaluation of AI generated questions. Together, the seven criteria were:

1: Did the question focus on an important concept or testing point?
2: Did the question assess application of knowledge, not recall of an isolated fact?
3: Was the vignette/question stem focused, closed, and clear?
4: Were the proposed answers homogeneous and plausible, without obvious cueing to the correct option?
5: Were there any technical flaws that introduced irrelevant difficulty or benefit to savvy test-takers?
6: Was all included information factually accurate? 7: was there one, and only one clear, correct answer?

SUMMARY OF RESULTS: Twenty-five AI questions were generated and then evaluated based on the criteria discussed in methods. Only 4 out of 25 questions (16%) fulfilled all 7 criteria. 24 (96%), 12 (48%), 22 (88%), 17 (68%), 18 (72%), 21 (84%) and 13 (52%) questions fulfilled criteria 1-7, respectively. Almost all questions tested an important concept (criterion 1) and included factually accurate information (criterion 6). The model struggled to generate questions that tested application of knowledge rather than recall of an isolated fact (criterion 2) and to generate answer choices that were all plausible (criterion 4) and pointed to one clear correct answer (criterion 7).

REFLECTIVE CRITIQUE: A major limitation of this study was that our model was not fine-tuned using the MedQA dataset due to costs associated with fine-tuning and hosting the fine-tuned model on a server. We believe training the model using a dataset of USMLE style practice problems would greatly improve the quality of questions generated by the LLM.

Community and Global Health

POSTERS 3-7

ABSTRACT #3

THE PROMISE OF "DIGITAL HEALTHCARE FOR ALL": IMPACT OF AGE AND ENGLISH PROFICIENCY ON ADOPTION OF THE MYMOUNTSINAI APP IN A VULNERABLE POPULATION OF HOSPITALIZED PATIENTS

Ayaan Seshadri, Amy Bush, Carol DeJesus, Stephanie Wang

PURPOSE AND GOALS: Healthcare access is rapidly digitizing. Today it is possible to download one's hospital's app to their phone, make appointments, see laboratory results, reorder medication, even get "e-treated" by one's doctor through the apps' video-consultation feature. Yet, United States government data (HealthIT.gov) shows that 21% of America never accesses health apps. What could be the reason for people to reject such medical convenience?

Our research assesses the overall receptivity, and the impact of age and English proficiency (as independent variables) on the adoption of the MyMountSinai (MMS) app in a very vulnerable population of hospitalized inpatients at the Mt. Sinai Morningside Hospital (MSM). Given the frailty of our patient population, a very rigid interview-based approach was deemed inappropriate. Building a bond was far more important (see Chadha and Lin; motivational interviewing; abstract # 8, abstract brochure IME Mt. Sinai Research Day 2024). Through elaborate and often personal conversations with our subjects, the researcher eventually wove in the topic of the MMS app.

METHODS: Our survey enrollment goal was N=100 subjects who did not already have MMS downloaded on their phones. Since MSM is a 489- bed hospital, it was concluded that interviewing 100 (~20% of beds) participants would capture the socio-ethnic diversity of the neighborhood, provide representative data on adoption trends, and generate robust patient verbatims on MMS use. A customizable script, using scenarios to teach patients how to activate the app, pay bills, order prescriptions, even video-chat with their care team, was developed. Our survey was conducted in unit 7W of MSM between Nov 2023 and July 2024, and patient selection was based on their proximity to discharge, which would make downloading MMS timely and important for their continued care, post-discharge. A flowchart of patient selection criteria will be presented at the 2025 IME Mt. Sinai Research Day.

EVALUATION PLAN: All analyses were performed using Microsoft Excel® and Python 3.0™. All qualitative data, like patients' accounts of their real-world obstacles to MMS use, will be presented as verbatim tables.

SUMMARY OF RESULTS: Hundred patients were included in this survey. All of them were given the opportunity to learn about the hospital eHealth app, MMS. 56 patients agreed to learn about MMS' benefits and uses, and underwent detailed education, with scenario role-playing, about how they would use the app. Success is measured by this patient's willingness to download the app after such training.
An initial digital education rate of 56% but a low final app-adoption rate of 21.4% was observed in our cohort of hospitalized patients.

Given the acuteness of their medical conditions, app-adoption in this population was a complex multifactorial decision. We analyzed the impact of age ≥65 years and English proficiency among these subjects.
Our data demonstrated that age ≥65 years is a reliable negative determinant of receptivity to eHealth

ABSTRACT #3 (CONT.)

(Pearson's coefficient -0.406) and contributed to ~17% of this decision (r-squared analysis r2 = 0.166). English proficiency played no part in app-adoption rates (Pearson's coefficient 0.006; r2 = 1.3 x 10-5). Qualitatively, a compendium of patient verbatims, from both app-adopters and rejectors, were collected and analyzed, that illustrate the roadblocks to digitization that seniors face daily.

REFLECTIVE CRITIQUE: The low app-adoption rate despite extensive education and conversation, and the dire patient verbatims collected, demonstrate that overzealous adoption of digital eHealth disservices our seniors, the very population that needs medical care the most. Through our research, we urge hospitals worldwide to ensure that they maintain traditional the "paper-and-pencil" based documentation for patients who need it, rather than mandatorily enforce the use of its eHealth apps. Given the diversity in digital literacy, and varied personal situations among patients, ensuring equity necessitates accommodating individuals who rely on conventional methods of documentation and record-keeping.

ABSTRACT #4

IMMEDIATE POSTPARTUM LONG-ACTING REVERSIBLE CONTRACEPTION (LARC) RESIDENT AND FACULTY EDUCATION: IMPROVING ACCESS AND UPTAKE OF POSTPARTUM CONTRACEPTION

Sophia Davis, Lisa Fiero, Sarah Andres, Alexis Gerk, Robert Dean, Fredric Moon, Cheryl Dinglas

PURPOSE AND GOALS: The purpose of this study is to provide immediate postpartum LARCs after resident and faculty education at our institution and determine if increased education and access to LARCs immediately postpartum while inpatient can improve patient access to LARCs by 12 weeks postpartum.

METHODS: Our research plan is to conduct both a retrospective and prospective study. The retrospective study portion include chart review for all our OBGYN clinic patients who delivered at MSSN from January 2022 to June 2024 to determine whether they received postpartum LARC contraception by their 12 week postpartum visit. This will be the pre-implementation group, which refers to the time period prior to implementation of the postpartum LARC policy at MSSN.

Resident education for administration of postpartum LARCs has been occurring over several sessions and will be presented at a Grand Rounds at our institution.

The prospective portion of the study will then be conducted and will similarly evaluate rates of postpartum LARC use amongst OBGYN clinic patients who deliver during the 6 month post-education period.

EVALUATION PLAN: We will compare rates of postpartum LARC usage by 12 weeks postpartum in the pre- implementation vs post-implementation group and assess patient characteristics and delivery outcomes that may influence postpartum uptake.

Additionally, we plan to survey all obstetrics providers that perform deliveries at our hospital about their comfortability and likelihood to recommend for or against postpartum LARC placement. This is in an effort to identify possible barriers to access to postpartum LARC placement as well a possible opportunities for provider education to increase routine usage.

SUMMARY OF RESULTS: As this study is under development, results to be determined.

REFLECTIVE CRITIQUE: We hypothesize and anticipate that this initiative will improve postpartum LARC contraception use by 12 weeks.

ABSTRACT #5

COMMUNITY OUTREACH PROGRAM IN A SAFETY-NET HOSPITAL: ENHANCING RESIDENT SKILLS TO ADDRESS SOCIAL NEEDS OF DIVERSE POPULATIONS

Dorde Jevtic, Maurizio Camere Pastor, Julie Kanevsky, Carlos Salama, Lucy Gordon

PURPOSE AND GOALS: The ACGME internal medicine (IM) requirements emphasize patient-centered communication, cultural humility, and responsiveness to diverse populations. To enhance these competencies, we created a community outreach program (COP) for PGY1 IM residents at an urban safety-net hospital, focusing on improving communication skills, professionalism, and interest in practicing medicine in underserved communities or primary care setting.

METHODS: Residents attended 2 to 4 four-hour sessions during their ambulatory rotation in partnership with a community-based organization. Activities included community outreach at public venues, observing social workers assisting domestic violence victims, and supporting new immigrants and asylum seekers at a local immigration center.

EVALUATION PLAN: Program impact was assessed using pre-and post-rotation questionnaires.

SUMMARY OF RESULTS: Twenty-eight residents have participated in the activity. The average age of participants was 28.7 years, with 57.1% identifying as male, and 75% reporting previous participation in a COP. Only one resident was actively involved in a COP at the time of the activity. A comparison of pre- and post-rotation survey responses revealed improvement in key areas. The percentage of residents who felt comfortable identifying the social needs of their patients increased from 35.7% to 79%. Similarly, those who felt well-equipped to care for a diverse patient population rose from 39.3% to 68.5%, and those who believed there was strong community support for underserved populations increased from 35.7% to 57.9%. However, there was no change in the proportion of residents indicating a likelihood of practicing medicine in underserved communities or primary care settings. When asked whether the rotation made them more likely to work in an underserved community, 47.6% agreed or strongly agreed and 52.6% remained neutral. When asked whether the rotation made them likely to practice primary care medicine, 63.2% remained neutral and 36.8% disagreed or strongly disagreed. The most frequently cited barriers to working in underserved areas included “language”, “economic”, and “cultural” challenges. Post-rotation feedback described the activity as “eye-opening”, “surprising”, and “insightful”. All residents reported being either satisfied or somewhat satisfied with the experience. Participants reported that they became “more aware of the social issues, patients’ needs, and health risks,” and that directly observing the community provided them with a “different perspective on patient care”.

REFLECTIVE CRITIQUE: Community outreach programs offer healthcare providers valuable insights into the individual needs of patients and may potentially improve their abilities to address social issues which can positively impact overall care. While our program did not increase residents’ likelihood of pursuing primary care, it enhanced their awareness of available resources to address diverse patient needs and fostered a patient-centered approach to medical practice.

ABSTRACT #6

BUILDING VACCINE CONFIDENCE: A COMMUNITY-DRIVEN EDUCATIONAL INITIATIVE IN EAST HARLEM

Megha Srivastava, Sire Sow

PURPOSE AND GOALS: Vaccine hesitancy significantly impacts public health outcomes, particularly in under-resourced communities. Vaccine hesitancy in East Harlem is influenced by various factors including misinformation, historical distrust of healthcare, structural barriers in healthcare access, and social influence. To address the barriers of vaccine misinformation and healthcare distrust among the community, SMART University initiated a community-based virtual educational program in East Harlem through a partnership with healthcare providers.

METHODS: Weekly 30-minute virtual educational sessions were held over a 1 year period over zoom and Facebook live. Sessions were led by various healthcare providers of different backgrounds, primarily internal medicine and preventive medicine residents. The curriculum content was determined by provider expertise and iterative feedback from participants. Topics included vaccine mechanisms, safety, effectiveness, addressing common misconceptions, and more.

EVALUATION PLAN: Participant knowledge and vaccine adherence were assessed using post-session surveys designed to capture changes in understanding and behavior.

SUMMARY OF RESULTS: Pending analysis of the survey data, early qualitative feedback suggests improved participant confidence in vaccine-related decision-making and greater engagement with preventive healthcare services. Initial observations indicate an increase in self-reported vaccine uptake among participants who completed the program.

REFLECTIVE CRITIQUE: This collaborative model demonstrates the potential of community-embedded education programs to enhance vaccine literacy and adherence. The iterative design, informed by participant feedback, ensures relevance and responsiveness to community needs. Pending final survey results, this initiative may serve as a replicable framework for addressing health disparities through community-provider partnerships.

ABSTRACT #7

TEACHING A MODIFIED PEDIATRIC ADVANCED LIFE SUPPORT COURSE FOR LIMITED-RESOURCE SETTINGS

Samantha Langer, Ann Pearson, Sussana Oad, Ann Palladino, Vanya Zvonar, Chase Westra, Nita Avrith, Ramona Sunderwirth, Eugene Tuyishime, Morgan Bowling

PURPOSE AND GOALS: Children presenting to hospitals that are sufficiently prepared and trained for pediatric emergencies have better outcomes. Over 7 million children died worldwide in 2019, largely of preventable or treatable causes, with 70% of those under 5 years old. In high-resource countries such as the United States, the American Heart Association (AHA) Pediatric Advanced Life Support (PALS) was created to teach providers a consistent and systematic way to recognize and treat critically ill children. However, AHA PALS training for providers in limited- resource settings (LRS), including many African countries, is often not feasible due to the lack of qualified trainers, appropriate simulation materials, and inadequate funding. These courses may also not be relevant in LRS. To address this gap, the Initiative for Medical Equity and Global Health (IMEGH), founded by a team of Rwandan anesthesiologists, developed a modified resuscitation program that aims to train additional providers in trainers across Africa and beyond. The purpose of this study is to assess the effectiveness of the IMEGH Pediatric Advanced Life Support course on healthcare providers' pediatric resuscitation performance in an LRS.

METHODS: This mixed methods study has gathered quantitative data on performance of resuscitation skills during simulated clinical scenarios and qualitative data to explore participants' pre- and post-training comfort level. The study population includes 35 healthcare providers (i.e., nurses, residents, and attending physicians) who registered for the IMEGH PALS course, conducted as a pre-conference workshop at the biannual African Conference on Emergency Medicine (AfCEM) in November 2024 in Gaborone, Botswana.

EVALUATION PLAN: Participants were asked to complete qualitative surveys one week prior to and immediately following the IMEGH PALS course to assess procedural confidence. The surveys included a list of procedures and scenarios and asked participants to rate their confidence level on a scale of 1-6. A follow-up survey will be distributed to participants 3 months after completion of the program to assess retention. We plan to use a paired t-test to analyze pre- and post-course data.

SUMMARY OF RESULTS: Results are expected to be available by March 2025.

REFLECTIVE CRITIQUE: We aimed to improve participants' comfort and expertise in PEM related scenarios, to be assessed using pre- and post-session surveys. We also plan to evaluate longer term retention by asking participants to complete a third survey 3 months after the session. Furthermore, by teaching this course in Gaborone and collecting our qualitative data, we hope to further validate the IMEGH curriculum and help to facilitate the expansion of this program to additional LRS.

Curriculum
(Graduate Medical Education)

POSTERS 8-37

ABSTRACT #8

TEACHING AN OLD RAT (RESIDENT AS TEACHER) NEW TRICKS: TRANSFORMING THE PEDIATRIC RESIDENCY TEACHING ELECTIVE EXPERIENCE

Brooke G. Weinberg, Conor Gruber, Jennifer Gillen, Leora Mogilner, Jan Fune

PURPOSE AND GOALS: Pediatric residents routinely serve as teachers to their peers, medical students, patients, and families despite having little or no formal training in teaching. While teaching is considered a required and critical skill set by the ACGME, there is no standard approach for training residents to become competent in this domain. A novel teaching elective curriculum was created to increase exposure to a variety of teaching methods and provide opportunities for trainees to receive feedback on the effectiveness of their teaching.

METHODS: The new elective emphasizes multi-level teaching techniques (i.e. broadening or targeting, which allow the educator to teach learners at different stages of training) and includes creation of a teaching script, development of a "chalk talk," and guaranteed 360-degree feedback. The chalk talk is formatted as an OSTE (objective structured teaching exercise), where the resident receives anonymous feedback from peers in real-time in addition to standardized evaluation from elective directors. All residents completed an end of block questionnaire adapted from Girdwood et al.

EVALUATION PLAN: Upon completion of the rotation, we distributed a survey that tallied number of tasks completed, assessed resident perceived knowledge and self-efficacy with a retrospective pre/post questionnaire, and measured overall satisfaction with the rotation. We evaluated the results using a Wilcoxon Signed Rank Test. OSTEs were scored using a checklist modified from Stetson et al.

SUMMARY OF RESULTS: Five residents have completed the elective to date, performing a cumulative 92% of the 60 assigned tasks. Pre-elective, 100% of residents rated themselves as novice or minimally knowledgeable on 6/9 teaching domains, such as developing a chalk talk or bedside teaching. Post-elective, the majority of residents (60%) rated themselves as competent or higher in 8/9 domains. There was statistically significant ($p < 0.05$) improvement in learner's pre and post self-efficacy ratings in the following domains: utilizing Bloom's Taxonomy to prepare learning objectives, creating and delivering a chalk talk, and defining and employing adult learning theory. The rotation was well-received by residents, with 100% of residents rating the educational experience as either "very good" or "excellent."

REFLECTIVE CRITIQUE: Our findings suggest that the teaching elective is both feasible and effective. Perhaps most surprising is the fact that residents feel inadequate to teach at this stage of their training, as illustrated by the pre- elective responses. As this teaching elective is mandatory for PGY3 residents, not all individuals are equally interested in improving teaching skills and some may be less intrinsically motivated. For future iterations of this curriculum, we may customize the teaching tasks based on resident preference to allow them more time to focus on chosen areas for improvement. We also plan to analyze the OSTE evaluations and compare resident self-efficacy ratings to 360 feedback ratings.

ABSTRACT #9

NIGHT MEDICINE CURRICULUM: A CASE BASED STRATEGY TO PREPARE INTERNAL MEDICINE INTERNS FOR COMMON OVERNIGHT EMERGENCIES

Anya Srikureja, Sabrina Khan, Mayce Mansour

PURPOSE AND GOALS:

1. To investigate intern preparedness for first night rotation and the need for additional resources
2. To develop a case based session for internal medicine interns targeting common overnight emergencies included hypotension, hypoxia, and altered mental status

METHODS: A targeted needs assessment was completed via survey of current interns and seniors regarding their preparedness to start their first night rotation of residency. Survey questions also assessed desire for further educational materials to prepare for night medicine rotations and what overnight emergencies in particular residents wanted more teaching on. Based on survey results, a case-based interactive session was created that covered the approach to hypotension, hypoxia, and altered mental status as the overnight intern. The session was delivered to interns at noon conferences during the first three months of residency.

EVALUATION PLAN: In order to evaluate effectiveness of education intervention, pre and post session surveys were created. These surveys included multiple choice questions to test both knowledge and confidence managing night emergencies before and after the session to assess for improvement. Also included open response questions for qualitative feedback.

SUMMARY OF RESULTS: Targeted needs assessment survey results showed that 58% of residents surveyed (n=29) felt very unprepared to begin their first night rotation of residency. 100% of survey respondents (n=29) felt that it would be helpful for the incoming intern class to have further resources to prepare for night medicine rotations. Approximately 40 interns participated in the case based interactive session. Qualitative feedback also showed that interns found the session helpful and agreed that session should be repeated next year.

REFLECTIVE CRITIQUE: Given variability of intern schedules, unable to capture all interns prior to their first night rotation which may decrease the usefulness/applicability of the session. Additionally, response rates of pre and post session surveys were low despite high attendance. As a result, unable to interpret pre and post session test question answers to obtain objective data regarding the effectiveness of educational intervention. Plan to continue the session in subsequent years to obtain a larger sample size.

ABSTRACT #10

TEACHING PEDIATRIC NEPHROLOGY EMERGENCIES THROUGH A CASE-BASED SESSION

Brittany Lattanza, Jessica Reid-Adam

PURPOSE AND GOALS: The Pediatric Entrustable Professional Activities and the American Board of Pediatrics exam outline state that pediatricians should be able to recognize and manage acute diagnoses. Trainees may not see Pediatric Nephrology emergencies through patient care due to many factors, including the low incidence. Our goal was to teach hypertensive crisis to pediatric residents in a way that promoted learner engagement and critical thinking.

METHODS: Based on a local needs assessment, we designed and implemented a case-based, small group session on hypertensive crisis that was delivered during the pediatric residency academic half-day. The session took 1 hour, with the learners reading the case in small groups and discussing questions that were embedded within the case. Content expert facilitators supplemented the discussion of the objectives.

EVALUATION PLAN: We created and delivered via REDCap anonymous pre- and post-session surveys that were administered in the learning space. The pre-and post-evaluations contained the same knowledge questions, and the post-survey also had Likert scale questions to evaluate the subjective response to the session.

SUMMARY OF RESULTS: A total of 17 residents attended the session. 16 completed the pre-session survey, 15 completed the post-session survey, and 13 of those were paired as determined by a unique code. All learners agreed/strongly agreed that their knowledge and confidence increased, that the amount of information was appropriate, and that they would want more sessions in this format. Residents overwhelmingly felt they were more intellectually stimulated and could ask questions more easily as compared to a lecture. Two respondents (13.3%) strongly agreed that they felt more stress during the case-based session as compared to a lecture. All knowledge questions showed an increase from pre to post test. There was a significant increase in the number of questions correct after the session ($p<0.001$). Paired t-test for the 13 paired pre/post surveys also showed a significant increase in number of questions correct ($p= 0.009$).

REFLECTIVE CRITIQUE: The session was successful as demonstrated by both the affective survey responses and the increase in knowledge scores. Limitations to a case-based session when there are many learners include need for multiple facilitators, a physical space that allows for small groups, and incorporating virtual learners if it is a hybrid session. The survey responses indicated that learners overall enjoyed the small group format, but further work could be done in understanding how the learners felt, as this type of session differs from their traditional academic half day lecture. This could be accomplished through free response questions added to future surveys or focus groups. Our results address Kirkpatrick levels 1 and 2, and future work should address whether this type of session leads to behavior change (intended or documented), as well as if the learning impacted patient outcomes. This could be accomplished through follow-up surveys or interviews.

ABSTRACT #11

PRIMARY CARE: CAREER (DEVELOPMENT), ANTICIPATORY (GUIDANCE), RESIDENT EDUCATION

Brooke G. Weinberg, Leora Mogilner

PURPOSE AND GOALS: The "Primary C.A.R.E." experience was developed to augment residents' exposure to primary care outside of the traditional clinic format and enhance their ability to provide parenting education and anticipatory guidance. We created a custom-designed longitudinal parenting curriculum while also offering networking and mentorship opportunities for residents interested in pursuing careers in Primary Care.

METHODS: We developed this curriculum using Kern's Model of Curriculum Development. First, we identified the problem that residents do not feel confident providing guidance to families surrounding routine parenting topics. We then performed a targeted needs assessment using a Google Forms survey and created goals and objectives for the new curriculum.The curriculum is designed as a series of monthly sessions, where pediatricians from local primary care practices are invited to teach about a specific topic and describe their practice. Dinner is provided and residents and invited pediatricians are encouraged to mingle before and after the session in alignment with our goal of promoting networking and mentoring. Forums usually run 90-120 minutes, with the first half reserved for education on how to provide anticipatory guidance on a pre-chosen topic and the second half open for the pediatricians to provide a "practice spotlight."

EVALUATION PLAN: After 6 sessions, we plan to do a retrospective pre/post survey looking at resident attitudes, self- efficacy, and confidence about providing parenting advice. Long-term, we plan to look at the influence of this programming on pursuing a career in primary care.

SUMMARY OF RESULTS: The targeted needs assessment reinforced the need for this intervention. 29/81 residents completed the survey for a 36% response rate. 93.1% (27/29) of respondents believe that residents do not receive enough training in order to provide parenting advice in continuity clinic, and most residents felt only "slightly confident" (9/21) or "somewhat confident" (17/21) in their abilities to provide parenting advice in the clinic. The monthly forum sessions have had a favorable attendance rate thus far, with 40% of categorical residents attending at least one.

REFLECTIVE CRITIQUE: Resident medical education is lacking a formal curriculum to teach residents how to provide anticipatory guidance despite the fact that it is an ACGME requirement and residents need to do so at all visits. This program directly addresses the need for more formal education, while also stimulating interest in primary care and providing potential mentorship and networking opportunities.

ABSTRACT #12

PALLIATIVE CARE FELLOWS SUPPORT A CURRICULUM ON PHYSICIAN-ASSISTED DYING IN FELLOWSHIP

Antoinette Esce, Melanie Koren, James Cescon, Edith Meyerson, Mollie A. Biewald, Robert M. Arnold, Anup Bharani, Laura Belland

PURPOSE AND GOALS: How to address physician-assisted dying (PAD) in hospice and palliative medicine (HPM) curricula is unclear. HPM fellowships in states where PAD is illegal are not insulated from this debate; the removal of the residency requirement in Vermont and Oregon means terminally-ill patients across the country are eligible to pursue PAD. Regardless of one's ideological stance, fellows are behooved to understand fundamental principles of PAD given their patient population. Though PAD is illegal in our state, we surveyed our fellows to assess their interest in the development of a PAD curriculum.

GOALS / OBJECTIVES: Create a survey for hospice and palliative medicine fellows to assess their interest in a formal curriculum on physician- assisted dying.

Design a curriculum on physician-assisted dying (PAD) that focuses on fundamental skills for responding to patients who are curious about PAD.

METHODS: An anonymous nine-question survey to assess fellows' prior exposure to PAD, views on learning about PAD, specific topics of interest, and intent to practice PAD in their future careers was conducted. Based on those results, a curriculum was developed by a multidisciplinary team of content experts.

EVALUATION PLAN: Pre and post curricular assessments of fellows knowledge and comfort dealing with this topic will be performed.

SUMMARY OF RESULTS: The initial survey response rate was 100% (N=21). Only four (19%) fellows had formal teaching on PAD prior to fellowship. All fellows rated the importance of learning about PAD as very important or somewhat important (on a 5-point Likert scale, from very important to very unimportant). Fellows were interested in learning about ethical concerns/considerations (95%), laws/patient eligibility (86%), responding to patient requests in serious illness conversations (86%), navigating patient requests (76%), and pharmacology and modes of ingestion (71%). Two fellows (10%) are considering providing PAD in their future practice, while 42% are unsure, 14% have not thought about it, and 33% are not considering providing PAD.

REFLECTIVE CRITIQUE: To the best of our knowledge, this is the first survey assessing hospice and palliative medicine fellows' views on a formal curriculum on physician-assisted dying (PAD). All surveyed fellows believed it is important to include teaching on PAD in fellowship, even if they do not plan to provide PAD. Based on results of the curriculum assessment on ongoing needs assessments, the curriculum will be revised and used on an annual basis.

ABSTRACT #13

VIDEO LARYNGOSCOPY RECORDING REVIEW FOR EMERGENCY MEDICINE RESIDENT EDUCATION

Timothy Friedmann, Jacqueline Ryder, Trevor Pour, Jared Kutzin

PURPOSE AND GOALS: Airway management is crucial for emergency medicine (EM) physicians. Supervised clinical experience is the main training method for EM residents in endotracheal intubations. Some programs review airway management cases to highlight key points, but often lack procedural details and technical feedback. Video laryngoscopes can record procedures for education and quality review. Previous studies have categorized common video laryngoscopy errors from emergency department (ED) intubations.

Our intervention aims to address an important gap in airway management training. This study aims to evaluate the utility of and attitudes towards an educational intervention that applies the taxonomy of common video laryngoscopy errors to intubation recordings as an adjunct to EM resident airway management education.

METHODS: We developed a teaching session called "Airway Review" which utilizes recordings of ED intubations performed via video laryngoscopy. A series of pilot sessions was performed at one EM residency program prior to this intervention, a 35-minute session, which took place at another EM residency program's weekly didactic conference.

EVALUATION PLAN: Using pre- and post-intervention surveys, we assessed comfort and familiarity levels with the taxonomy of common errors. We also assessed enjoyment and perceived utility of the Airway Review session by the participants. Paired survey responses were assessed using Wilcoxon signed-rank tests.

SUMMARY OF RESULTS: 32 people completed the pre-intervention survey and 28 completed the post. 23 pairs were identified. There was no statistically significant difference in comfort with performing video laryngoscopy among individuals between the pre and post assessments. There was a statistically significant change in familiarity with Weingart et al.'s taxonomy of key performance errors for emergency intubations ($z = -4.268$, $p = 0.00$). There was a significant change in comfort with utilizing the taxonomy as a framework when performing laryngoscopy ($z = -4.295$, $p = 0.00$).

27/28 strongly agreed and one agreed with the statement "I enjoyed the airway review session" (mean = 3.96/4). 27/27 either strongly agreed or agreed with the statement "The airway review session was useful for my airway management education" (mean = 3.85/4).

REFLECTIVE CRITIQUE: This Airway Review session improved familiarity with the taxonomy of common video laryngoscopy errors and comfort levels with utilizing the previously established taxonomy as a framework while performing intubations. However, it did not improve comfort levels in performing video laryngoscopy itself. Participants both enjoyed and found the session useful in their airway management education.

ABSTRACT #13 (CONT.)

REFLECTIVE CRITIQUE (Cont): One limitation is the intervention was a single educational session. Future work should consider longitudinal curricula. This study evaluates level one of Kirkpatrick's Model; future studies should include higher-level, patient-centric outcomes. Conducted at one program, broader samples are needed to understand Airway Review sessions' effects.

ABSTRACT #14

EDUCATIONAL INTERVENTION TO TEACH ULTRASOUND GUIDED NERVE BLOCKS FOR HIP FRACTURES IN THE EMERGENCY DEPARTMENT

Sabrina P. Rodera Zorita, Timothy Friedmann, Trevor Pour

PURPOSE AND GOALS: USGNB are an important tool to manage pain in the ED. They offer local pain control avoiding systemic complications. The use of USG make these procedures safe and effective. Even though these benefits have been demonstrated in the literature, the implementation in the ED faces many challenges, including lack of clinician's proficiency. Hip fractures are a common presentation, with strong evidence that USGNB offer pain control with a good safety profile.

The goal was to measure the incidence of USGNB performed for hip, femur, and pelvis fracture and dislocations, after implementing a nerve block teaching program as part of the regular curricula for the academic year 2023-2024

METHODS: The educational curriculum included:

- Teaching Pearls, distributed via email to all the EM residents and faculty.
- Conference workshop at MSBI (system conference): short didactic and hands-on training for PENGblock.
- Conference workshop at EHC (weekly EM comference): Short didactic, and hands-on practice on gelatin and meat models, for truncal, upper and lower extremity blocks.
- Faculty development sessions for attendings at EHC, USGNB for hip fractures: PENG, fascia iliaca and suprainguinal fascia iliaca. Didactic and hands-on training.
- PA development session for MSH EM Physician Assistants (June, 2024), USGNB for hip fractures: PENG, fascia iliaca and suprainguinal fascia iliaca. Didactic and hands-on.
- "Teaching the teachers": year long teaching for the PGY3 class during their "teaching resident" block, academic year 2023-2024. All the 24 PGY3 EM residents were trained in PENG block using a gelatin modelon-site.

EVALUATION PLAN: Retrospective, observational study. We aim to compare the utilization of USGNB for hip, femur and pelvis fractures or dislocations before, during and after the intervention period. We measured the number of USGNB for the anatomic area performed in the ED, over the number of patients presenting with the corresponding ICD-10 codes to EHC, during the six months prior to the intervention (Jan 2023-Jun 2023), during the intervention period (Jul 2023-Jun 2024), and six months after the intervention (Jul 2024-Dec 2024)

ABSTRACT #14 (CONT.)

SUMMARY OF RESULTS: Pre-intervention: 6 USGNB over 169 presentations (hip, femur, pelvis fracture or dislocation). IR: 0.035 Intervention: 20 USGNB over 415 presentations. IR: 0.045 Post-Intervention: 14 USGNB over 212 presentations. IR 0.066 Comparing the changes over time, there was a 35.77% change in rate between the pre-intervention and intervention period, 36.93% change between intervention and post-intervention period, and overall a 85.92% change between the pre and post-intervention period (p-value: 0.384)

REFLECTIVE CRITIQUE: The intervention likely had a positive effect, with sustained improvement post-intervention, although the results of this study did not achieve statistical significance ($p > 0.05$), likely due to the limited sample size. Despite the efforts in training all the different clinicians the number of USGNB performed remains low. Other barriers need to be identified.

ABSTRACT #15

UTILITY OF HIGH-FIDELITY SIMULATION FOR RADIOLOGY RESIDENT CONTRAST REACTION MANAGEMENT

Joseph Wise, Marcus Konner, Swati Malik, Barak Friedman,
Amita Kamath, Susannah Kurtz, Harrindra Seepersaud, Priscilla Loanzon

PURPOSE AND GOALS: Contrast reactions are rare occurrences that can have severely morbid consequences. Research has shown a wide range of baseline knowledge and methods to teach radiologists how to manage these scenarios. Our aim was to evaluate our curriculum and see if the addition of hands-on high-fidelity simulations aids residents in simulation preparation and comfortability.

METHODS: Our Diagnostic Radiology residency participated in a hands-on high-fidelity simulation experience under an approved Institutional review board (IRB) observational study design. Baseline data via survey was collected prior to contrast reaction simulations. Simulation experiences were conducted with one anaphylactic case and one anxiety/asthma attack "mimic." A post-simulation survey was administered to evaluate for any improvements.

EVALUATION PLAN: Once pre- and post-simulation surveys were collected, statistical analysis was run to determine if there was statistically significant improvement in objective performance or subjective sense of preparedness to manage contrast reactions.

SUMMARY OF RESULTS: Data was collected from 42 diagnostic radiology residents. Evaluating epinephrine dosage, all years of training demonstrated statistically significant improvement ($p=0.0115$, $p=0.0006$, $p=0.0001$, $p=0.0022$ for PGY2 through 5 respectively). Epinephrine location within code carts was also assessed, which demonstrated statistically significant improvement ($p=0.0000$, $p=0.0000$, $p=0.0004$, $p=0.0017$). Epinephrine IM to IV utilization, however, did not show statistical improvement in each of the groups except the PGY3 group ($p=0.0001$). With regards to subjective preparedness/comfortability, there was significant improvement ($p = 2.93e\text{-}20$).

REFLECTIVE CRITIQUE: Given the statistically significant improvement in medication dosing and code cart usage, high- fidelity simulation training is useful additive for baseline education. The consistent improvement in performance across all educational levels also demonstrates that all residents would benefit from additional hands-on training. Additionally, the statistical improvement in subjective preparedness reaffirms that hands on training benefits comfortability in these scenarios.

ABSTRACT #16

TEACH LIKE A CHAMPION: APPLYING HIGH ENGAGEMENT TEACHING TECHNIQUES TO MEDICAL EDUCATION

Calvin Gross, Rene Claxton, Anup Bharani, Robert M. Arnold, Mollie A. Biewald

PURPOSE AND GOALS: Active classroom learning is a key tool for promoting an inclusive learning environment (1). Preliminary data from the Department of Geriatrics and Palliative Medicine indicates that few faculty currently employ evidence-based active learning strategies when teaching fellows in the classroom setting. Our project aims to increase faculty use of and confidence with active learning strategies based on work done in K-12 education, strategies which have been shown to increase voice equity in the classroom (2).

METHODS: Our project was determined to be IRB exempt. Based on evidence-based teaching principles used in K-12 education, we developed four one-hour faculty development sessions. These sessions focused on the cognitive science of learning and four teaching techniques to increase student engagement and thinking: Cold Call, Everybody Writes, Wait Time, and Turn and Talk (3). 24 faculty were invited to participate and 21 joined. The sessions were delivered in November - December 2024.

EVALUATION PLAN: Electronic pre and post-intervention surveys were sent to faculty. The pre-intervention survey assessed self-reported frequency of use of teaching techniques and self-reported preparedness to use the aforementioned techniques. The post-intervention survey focused on satisfaction with each session and whether they would recommend the session to other faculty.

SUMMARY OF RESULTS: 21/21 faculty completed the pre-survey, and 18 faculty members completed the post-session surveys. In pre-session surveys, 52% of faculty self reported often or always using Wait Time in didactic teaching, but less than ¼ reported often or always using Cold Call (23%), Turn and Talk (9%), and Everybody Writes (5%). About ⅓ of faculty reported feeling very or fully prepared to use Wait Time (38%) and Cold Call (33%), but fewer for Turn and Talk (5%) and none for Everybody Writes. A mean of 19.5/21 faculty members attended all four sessions. Of faculty who attended the sessions, 94% agreed or strongly agreed that they found the content high quality, important to their teaching practice, and would recommend it to other medical educators. Comments praised the interactive component of the sessions and opportunities to practice the skills. Critical feedback suggested alternate timing for the sessions and ways to make the practice more applicable to upcoming teaching sessions.

REFLECTIVE CRITIQUE: Our project demonstrates that faculty found the intervention applicable and useful to their education practice. How the intervention impacted faculty's use of the above techniques and learner engagement is unknown. To understand this, we plan to observe recordings of faculty teaching sessions before and after implementation of the curriculum and compare use of the four skills and frequency of learner participation. Faculty also will be surveyed following their post-intervention teaching about their experience using the skills.

ABSTRACT #17

END-OF-LIFE (EOL) CHEAT SHEET: AN EOL SYMPTOM MANAGEMENT POCKET REFERENCE CARD FOR RESIDENTS AND GENERAL INTERNISTS

Dylan Suyama, Raul Benavides Leon, Noelle Javier

PURPOSE AND GOALS: End-of-life (EOL) symptom management is a key component of patient-centred care. [1] Internal medicine residents are front line providers to many EOL patients and should be empowered to initiate timely and effective comfort- focused care. This medical education project aims to increase medical residents' confidence and competence in EOL symptom control in the inpatient setting.

LEARNING OBJECTIVES:

1. Identify key areas of symptom control at the end-of-life (pain, dyspnea, nausea, anxiety, respiratorysecretions)
2. Initiate comfort care management with prescription of symptom control medications
3. Activate electronic medical record (EMR) Comfort Care orderset

METHODS:

A mixed-methods educational approach was designed after baseline needs assessment. The intervention consists of badge-sized reference cards (Cheat Sheets) complemented by small-group teaching sessions. An EMR-based 'Comfort Care' order set was developed to streamline end-of-life prescriptions. The Cheat Sheets contained key end- of-life symptoms, suggested medication dosages, directions to access the EMR order set and indications for a palliative care consult. Data was gathered through pre- and post- surveys of residents at designated timepoints.

EVALUATION PLAN: See above

SUMMARY OF RESULTS:

A needs assessment of 30 residents showed that 50% (n=15) had low confidence in EOL prescribing and 80% (n=24) described a lack of knowledge on medication dosages. Following our intervention, surveys of 26 participants revealed statistically significant improvements in resident confidence. Mean comfort level for EOL prescription increased from 3.34 to 4.16 (P=0.0003, CI: 0.39-1.23) with corresponding positive results in the domains of pain/dyspnea, nausea/vomiting, anxiety/agitation and respiratory secretion management. An audit of the usage of the EMR Comfort Care order set is underway to determine the impact of the project on resident prescribing practices.

REFLECTIVE CRITIQUE: This medical education project uses innovative techniques to promote simplified resident-led EOL care. Utilizing a handy pocket reference card along with didactic sessions and EMR-activated resources are effective tools in delivering high quality comfort-focused care.

ABSTRACT #18

PLANNING AND IMPLEMENTATION OF NO-PREPARATION FLIPPED CLASSROOM SESSIONS FOR PGY-1 INTERNAL MEDICINE RESIDENTS

Yoshiko Ishisaka, Arpanjeet Kaur, John Andrilli, Vasundhara Singh

PURPOSE AND GOALS: Prior medical education literature suggests the beneficial outcomes of flipped classroom learning as this will enhance engagement and student satisfaction. It has also been shown to improve knowledge acquisition and retention. The barrier to implementation is the amount of pre-course preparation. To overcome this, we implemented flipped classroom sessions requiring no pre-course preparation.

METHODS: We identified four key topics for PGY-1 Internal Medicine Residents: antibiotic choice, EKG interpretation, hyponatremia, and acid-base disorders. From September to December 2024, we conducted four flipped classroom sessions. Interns had 20 minutes for in-session reading, followed by 40-minute case-based discussions in groups of 8- 10, facilitated by hospital medicine faculty and chief residents.

EVALUATION PLAN: In December 2024, we conducted a survey on the flipped classroom lectures. The survey assessed: aspects of the session that were most engaging and beneficial for their learning, feedback for improvement and an example of clinical application of the content learned.

SUMMARY OF RESULTS: We had 16 responses, with 94% giving positive feedback and highlighting small group discussions as the most engaging aspect. Participants appreciated the interactive nature of the sessions, including discussions with attendings and peers, which promoted active engagement and thinking. They valued the opportunity to apply what they learned through practice problems and case studies, which reinforced their understanding.

A qualitative analysis showed that 2 of 16 participants suggested moving back to traditional presentations or didactic lectures. Some participants expressed a need for fewer, more focused questions and shorter reading materials, and suggested having printed materials available ahead of time. Some mentioned that time constraints for reading, and engaging in cases made it difficult to retain information. Three participants advised smaller group sizes for discussions.

62.5% applied what they learned to the clinical setting. Participants frequently applied their knowledge of antibiotic selection, particularly for UTIs. The hyponatremia workup and acid-base analysis were frequently used as well.

REFLECTIVE CRITIQUE: Overall, the flipped classroom approach was a hit, enhancing engagement and proving useful for knowledge acquisition and clinical application. While we aimed to eliminate pre-course study time, some participants felt that the time constraints during sessions were a bit challenging.
It is important to note a few limitations: the number of responses was low, which might not fully represent the general opinion. Additionally, we could not measure objective outcomes like knowledge acquisition, retention, or patient outcomes. Moving forward, we are excited to explore the best format, whether it is in-session preparation, smaller discussion groups, or a mix of lecture-style sessions. The positive feedback and valuable insights will guide us in refining and improving our approach

ABSTRACT #19

LET'S TALK ABOUT SEX: UNCOUPLING SEXUAL HISTORY ASSESSMENT

Anna Fagbemi, Ivie Odiase, Barbara Deli, Sharon M. Edwards, Moronkeji Fagbemi

PURPOSE AND GOALS: Sexually transmitted infections (STIs) remain a serious public health concern in the United States, potentially leading to severe complications such as pelvic inflammatory disease (PID), increased cancer risk, and infertility if untreated. In 2022, over 2.5 million cases of syphilis, gonorrhea, and chlamydia were reported nationwide. According to the CDC, syphilis cases in the U.S. increased by 80% from 2018 to 2022, reaching over 207,000 cases—the highest level since the 1950s. Congenital syphilis also saw a troubling rise, with cases doubling from 2019 to 2021 and exceeding 2,800 in 2022.

Conducting a rigorous sexual history is essential for effective diagnosis, treatment, and prevention. This study aims to assess the sexual history-taking skills and practices of resident physicians to identify gaps for future improvement.

METHODS: Primary care resident physicians at Mount Sinai Hospital and Mount Sinai West received a 11-item Google survey to assess their knowledge, confidence, and experience in obtaining a sexual history from patients. This pre- lecture survey helped to identify deficits and areas for improvement in sexual history-taking and education across various specialties and postgraduate levels.

Following the initial survey, resident physicians received a 23-slide PowerPoint presentation with simulation videos to guide accurate sexual history documentation, focusing on the five P's: Partners, Practices, Protection from STIs, Past History of STIs, and Pregnancy Intention. A post-lecture survey followed to evaluate the presentation's effectiveness.

EVALUATION PLAN: The pre-lecture survey responses were compared with those from the post-lecture survey, examining factors such as demographics (specialty and postgraduate year), educational gaps, confidence levels, and stigma associated with sexual history-taking.

SUMMARY OF RESULTS: Twenty-seven participants completed the surveys. Prior to the educational presentation and simulation videos, 63% of participants reported being unfamiliar with the 5 P's of sexual history taking. An equal percentage indicated that they routinely inquired about generalized sexual activity without specifying the type (vaginal, anal, or oral sex). Furthermore, 77.8% found it challenging to address past trauma and abuse when obtaining a sexual history, while approximately one-third reported difficulty discussing sexual history with LGBTQ+ patients due to limited exposure and inadequate training. Following the presentation and simulations, confidence in inclusive sexual history taking increased significantly, from 70% to 96%.

REFLECTIVE CRITIQUE: This lecture enhanced primary care residents' proficiency and confidence in taking comprehensive sexual histories while reducing bias. Additionally, It emphasized the importance of ongoing education when discussing sexual health in diverse populations (e.g., LGBTQ+ individuals, cultural differences). When physicians confidently initiate these conversations, patients feel at ease, fostering honesty and improving healthcare quality.

ABSTRACT #20

ADAPTATION AND INTEGRATION OF RESILIENCY PROGRAMMING INTO INTERNAL MEDICINE RESIDENCY

Rebecca Fisher, Jacqueline Hargrove

PURPOSE AND GOALS: The Practice Enhancement, Engagement, Resilience, & Support program (PEERS) is a longitudinal program designed at the Icahn School of Medicine at Mount Sinai (ISMMS). This trainee-led program is designed to promote resilience, well-being, and a sense of community among medical trainees through mindfulness exercises, group discussions, and evidence-based strategies from positive psychology. While the PEERS curriculum was initially created for medical students to provide practical skills for navigating adversity and thriving within medicine, our aim was to adapt the curriculum for the internal medicine residency program, as well.

METHODS: Each of PEERS' 8 modules is facilitated by post-graduate year (PGY) 2's and 3s to interns during their outpatient rotations. The interns were split into four small groups to create a more intimate setting and foster comradery. The outpatient setting was selected to ensure that interns remained with the same groups of co-interns and worked in an environment where the workload is generally lighter.

EVALUATION PLAN: At the end of each module, the facilitators completed surveys to reflect on the group's engagement, relevancy of content, strengths of the curriculum, and areas for feedback.

SUMMARY OF RESULTS: The average engagement score across all eight sessions was 3.9 out of 5. Sources of engagement included session topic, group dynamic, in-session skills practice, and tips for applying the skill outside of the session. Icebreakers were noted to be particularly helpful in facilitating engagement; the ideal group participation occurred when groups included approximately 7 to 10 people. The PEERS sessions allowed interns to feel comfortable and vulnerable with one another. The average relevancy of content score was 4.4 out of 5. Sessions that were reported as being particularly relevant applied to both professional and personal experiences and responsibilities. Additionally, the sessions created time and space to discuss matters that are particularly important but often go undiscussed in quotidian life. PEERS sessions helped facilitate camaraderie and a sense of community among residents. Most of the feedback for improvement was in regard to scheduling barriers and wanting to decrease time conflicts in order to encourage increased attendance.

REFLECTIVE CRITIQUE: Overall, learners and facilitators are excited about the PEERS program's integration into the internal medicine residency curriculum at ISMMS. While the program is still in the early stages of being incorporated into residency programs, we hope that PEERS will continue to grow and better equip interns through one of the most challenging years of residency.

ABSTRACT #21

SEDATION IN ICU: A NOVEL ONLINE CASE-BASED INTERACTIVE LEARNING TOOL FOR RESIDENT EDUCATION

Archana Pattupara, Alexander Davidovich, Mirna Mohanraj, Fernando Vázquez de Lara, Hammad Sheikh, Gale Justin, Lilas Armstrong-Davies, Erik Popil

PURPOSE AND GOALS: Internal medicine residents rotating in the ICU are at the forefront in managing critically ill patients who require sedation. There is a notable knowledge deficit for these residents regarding the management sedatives in the ICU. To our knowledge, no formal curricula have been published on this subject. We have created a novel asynchronous case-based interactive learning module which aims to educate internal medicine residents on the evidence-based usage of sedatives in the ICU and assess the effectiveness of improving residents' confidence and knowledge and utilization of sedatives in the ICU

METHODS: The curriculum was developed using Adobe Captivate in collaboration with our instructional design team. IRB approval was obtained for the study. All Internal Medicine residents were eligible to enroll. We developed four case-based modules. Learners progressed by correctly answering embedded knowledge questions. Real-time feedback for all choices, along with high-yield review points were provided. The curriculum was implemented during resident Academic Learning days in July and September 2024. Participants completed a validated pre-intervention questionnaire assessing ICU experience, knowledge, and confidence in ICU sedation management using a Likert scale, followed by the online intervention. A post-intervention survey at the end of the fourth module.

EVALUATION PLAN: The responses to the pre and post intervention questionnaires were deidentified and collected using Microsoft forms.

SUMMARY OF RESULTS: A total of 81 residents participated, with 87.6% completing the study. At the time, 49.3% had at least four weeks of ICU rotation experience, while 76.5% reported no prior formal training on the topic. The session led to statistically significant improvements in learner confidence across all measured parameters. These included: 1) identifying Richmond Agitation Sedation Scale (RASS) and Critical Care Pain Observation Tool (CPOT) scores, 2) choosing appropriate targets for the sedatives, 3) determining readiness and in performing spontaneous awakening trials, and 4) managing specific sedatives/analgesics. Satisfaction rates were high, with 87.1% of participants very or extremely satisfied, 75.4% likely to change their practice, and 83.5% likely to refer to the module in future rotations.

REFLECTIVE CRITIQUE: This study highlights the need for structured teaching on ICU sedation management. We have developed an innovative, interactive, self paced, asynchronous curriculum that Internal Medicine residents can review at their own convenience. Above results suggest that the curriculum effectively improved residents' confidence and knowledge on this topic. Our data noteda discrepancy in qualitative self reported confidence compared to quantitative knowledge based questions. This suggests that learners may overestimate their confidence with their medical knowledge. The curriculum is freely available to residents throughout their training and will be assessed at the end of the year to assess longitudinal learning and retention.

ABSTRACT #22

IMPACT OF A NON-INVASIVE VENTILATION SESSION ON INTERN KNOWLEDGE AND CLINICAL APPLICATION: A MULTISITE ASSESSMENT WITHIN AN INTERNAL MEDICINE RESIDENCY PROGRAM

Keshav Dixit, Agostina Velo, Archana Pattupara, Adam Rothman

PURPOSE AND GOALS: Respiratory failure is common in patients admitted to the medicine floors and intensive care units (ICUs), where residents play a critical role as frontline providers. Non-invasive ventilation (NiV) has multiple indications and can prevent escalation of care, reduce length of stay and lower mortality rates. The purpose of this session was to enhance Internal Medicine Interns' knowledge and clinical application of NiV techniques, such as bi- level positive airway pressure (BiPAP), continuous positive airway pressure (CPAP), and high-flow nasal cannula (HFNC).

METHODS: As part of the Intern Bootcamp Lecture Series, a one-hour session was delivered simultaneously at two Mount Sinai Health System sites in New York City. The session comprised of two sections: a didactic portion covering the definitions, technical aspects, and indications of NiV therapies and an interactive component featuring clinical case discussions with hands-on experience using BiPAP and HFNC machines facilitated by respiratory therapists.

EVALUATION PLAN: A ten question pre- and post-session survey was utilized to measure interns' knowledge acquisition. Fisher's Exact Test, conducted by ChatGPT.com (model version GPT-4-turbo), was applied to assess statistically significant changes in understanding across survey questions.

SUMMARY OF RESULTS: Out of 36 interns who attended the session, 29 (81%) completed the pre-session survey, and 14 (39%) completed the post-session survey. Statistically significant improvements were observed in responses to questions on CPAP indications/contraindications ($p = 0.0014$) and BiPAP clinical application ($p = 0.00006$). A notable trend toward improvement ($p = 0.052$) was also seen for another question on BiPAP comprehension. Most other questions did not show significant change, likely due to high pre-session scores.

REFLECTIVE CRITIQUE: This session successfully reinforced key concepts and improved knowledge in areas with lower pre-session comprehension. However, the small sample size and response rate limits the generalizabilty of findings. Future iterations should address engagement and expand the sample size to validate these findings. Additionally, tailoring content to emphasize more challenging topics and assessing long-term knowledge retention could enhance the curriculum's impact on clinical practice.

ABSTRACT #23

COST-CONSCIOUS CARE: ASSESSING INTERNAL MEDICINE RESIDENTS' CONFIDENCE AND KNOWLEDGE GAPS IN INPATIENT VS. OUTPATIENT EXPENSES

Sarah Kosse, Ann Mercurio, Sara Luby, Lindsey Fox, Vasundhara Singh

PURPOSE AND GOALS: The rising cost of healthcare in the U.S. is a critical issue, with expenses outpacing inflation and creating challenges for patients and healthcare systems. Medical education must now address cost-awareness and high-value care, but traditional residency programs often overlook the financial implications of medical decisions. Junior residents frequently order extensive tests, leading to unnecessary costs and incidental findings instead of targeted, cost-effective diagnostics.

Internal medicine residents can significantly influence healthcare spending, yet their understanding of cost-conscious decision-making in both inpatient and outpatient settings is underexplored. This needs assessment aims to assess their confidence and knowledge with the costs of inpatient and outpatient care. By identifying gaps in cost-awareness, the research seeks to develop educational strategies that integrate cost-effective principles into residency training, fostering physicians who are both clinically competent and cost-conscious.

METHODS: An electronic needs assessment was sent to 285 internal medicine residents at Mount Sinai Morningside and West to evaluate their confidence and knowledge of inpatient and outpatient care costs. The assessment included three questions on decision-making factors, confidence in cost-effective care, and self-perceived knowledge gaps in high-value care education. Participation was voluntary and anonymous.

EVALUATION PLAN: Responses were analyzed to identify knowledge gaps and areas for improvement in cost- awareness. The findings will guide the development of medical educational curriculum for Internal Medicine Residents and strategies to promote cost-conscious decision-making in clinical practice.

SUMMARY OF RESULTS: Out of 285 residents, 48 responded:
31.3% were PGY-1, 45.8% PGY-2, and 22.9% PGY-3. Key findings include:
- Decision Factors:
  72.9% cited outpatient resources, 64.6% logistical factors, and only 33.3% considered cost.
- Confidence in Cost-Effective Care: 54.2% were "not very confident," and 12.5% were "not at allconfident."
- Educational Interests: 85% wanted to learn about discharge costs, 77% about barriers to high-value care, and 51% about high-value care concepts.

These results highlight a need for education on cost-effective strategies, especially in discharge planning and overcoming barriers to high-value care.

REFLECTIVE CRITIQUE: The needs assessment shows a significant gap in residents' knowledge and confidence in cost- effective care, with costs often overlooked in decision-making. However, there is strong interest in learning about cost- conscious practices, particularly in discharge planning and overcoming barriers to high-value care. These findings highlight the need to integrate cost-awareness training into residency programs to help future physicians make informed, cost-effective decisions while maintaining high-quality care.

ABSTRACT #24

A SIMULATION-BASED CURRICULUM FOR JUNIOR RESIDENTS ON INTRAHOSPITAL TRANSPORT OF CRITICALLY ILL PATIENTS

Kayla Basedow, Duncan Grossman, Timothy Friedmann

PURPOSE AND GOALS: Intrahospital transportation of a critically ill patient is one of the most dangerous times in a patients care. Literature suggests that patients are at increased risk for adverse outcomes including vital sign abnormalities, equipment failure, or even cardiac arrest. New doctors are often tasked with the responsibility of being the accompanying physician during critical transports to assist should any adverse event occur. These new physicians may not be familiar with equipment, medications, or how to respond if an adverse event occurs. Therefore, the goals of this project were to create a simulation-based curriculum for first year emergency medicine residents to complete during their orientation month to help them prepare for this role.

METHODS: This curriculum consisted of two small group sessions for all learners. The first session was a simulated case which utilized the Rapid-Cycle Deliberate Practice (RCDP) model. Learners were presented a clinical case of a critical patient requiring "transport" to the ICU utilizing a high-fidelity sim mannequin. During the case the patient experienced multiple adverse outcomes including oxygen desaturation, unresponsiveness, hypotension and cardiac arrest. After each adverse outcome, the simulation was stopped and a debrief occurred, after which the simulation was started again from the beginning. The second session was a hands-on skills session utilizing equipment where residents learned how to create push dose epinephrine, manipulate medication dosages on IV drip pumps, and adjust ventilator settings.

EVALUATION PLAN: Residents were sent a seventeen question pre and post test assessing confidence in individual skills necessary for patient transport such as connecting a patient to a monitor, creating push dose medications and utilizing different oxygen modalities as well as questions assessing overall confidence in transporting a critical patient. The questions were scored on a Likert-type scale with 1 being "strongly disagree" and 5 being "strongly agree." There was also an opportunity for qualitative written feedback. In 6 months, residents will receive another survey to assess if they felt what they learned was useful in residency.

SUMMARY OF RESULTS: Confidence improved significantly on all individual patient-care skills assessed. Overall confidence in transporting a critical patient improved from an average of 1.7 on the Likert-scale to a 4.3 on the Likert- scale.

REFLECTIVE CRITIQUE: Residents enjoyed this session and their confidence in both transporting critically ill patients and preforming procedures improved significantly. When utilizing the Kirkpatrick model, this study qualifies as Kirkpatrick level one. Areas for further study would be having an exam where residents would have to demonstrate skills learned to assess for improvement in technique to employ higher levels of Kirkpatrick data. Additionally, including other specialties and other professions such as nursing are areas for expansion of this project.

ABSTRACT #25

IMPLEMENTING A PILOT ADDICTION MEDICINE ELECTIVE FOR EMERGENCY MEDICINE RESIDENTS

Terence M. Hughes, Duncan Grossman, Timothy Friedmann, Jennifer S. Love

PURPOSE AND GOALS: As the opioid overdose crisis worsens, emergency medicine (EM) physicians are increasingly caring for patients who use drugs (PWUD) and patients with substance use disorders. EM providers have always been well trained to respond to life-threatening emergencies affecting PWUD, including withdrawal or overdose.

However, new research demonstrates that it is within an EM physician's scope of practice to initiate opioid agonist therapy like buprenorphine, provide harm reduction supplies, and coordinate outpatient care referrals for PWUD. Despite this, many EM physicians feel underprepared when working with PWUD. To our knowledge, no EM residency program has previously published the availability of an addiction medicine elective curriculum specifically designed for EM residents.

METHODS: We designed an opt-in, two-week addiction medicine elective available to EM residents at a single-site, urban residency program. The pilot elective will be interdisciplinary, with residents receiving education from social workers, peer advocates, emergency and primary care physicians, and people who use drugs. The curriculum will span numerous clinical environments including time spent on an inpatient addiction consult service, in an outpatient primary care clinic specialized in working with PWUD, in a social services harm reduction organization, and in the emergency room.

EVALUATION PLAN: Each resident who completes the elective will be asked to fill out a standardized feedback form, consistent with the mode of evaluation for other electives. In particular, residents will be asked to rate on a Likert scale their enjoyment of and educational fulfillment from the elective, in addition to their assessment of its applicability to emergency medicine. They will also be asked to provide free-response feedback for the rotation, including suggestions to improvement and key educational takeaways.

SUMMARY OF RESULTS: This elective is newly implemented during the 2024-2025 academic year. We hypothesize that implementation of this elective will increase resident exposure to addiction medicine, and interest in pursuing further addiction medicine educational opportunities, including addiction medicine fellowship.

REFLECTIVE CRITIQUE: We describe the implementation of a novel addiction medicine elective available to EM residents. The elective is interdisciplinary, with residents receiving education from multiple stakeholders across numerous clinical environments. To our knowledge, this represents an innovative EM elective. In describing the elective's implementation, we provide a model for peer EM residency programs interested in providing residents with similar education. The implementation of this elective presents an important opportunity to simultaneously better prepare EM residents working with PWUD while building a future workforce dedicated to improving outcomes for this patient population. Further investigation will be required to assess the impact of this pilot elective.

ABSTRACT #26

IMMERSIVE ROTATION FOR RESIDENT TRAINEES TO TEACH SYSTEMS-BASED PRACTICE

John Angiolillo, Reham Shaaban

PURPOSE AND GOALS: Effective care for Internal Medicine (IM) patients relies on seamless collaboration with ancillary services to manage complex patient needs. The Accreditation Council for Graduate Medical Education (ACGME) underscores the importance of this collaboration through the Systems-Based Practice (SBP) domain of its Entrustable Professional Activities. The SBP milestones for IM trainees evolve from recognizing the components of the health system to advocating for changes that enhance high-value care. Despite SBP's significance, there is limited literature on structured pedagogy to teach it, with the responsibility often falling to senior residents to guide junior trainees informally. However, this approach is highly variable and may be unavailable at new training programs, like ours.

Published formal methods for teaching SBP typically focus on singular strategies, such as lecture-based didactics, brief tours, shadowing in the physician role, or retrospective case reviews.

METHODS: To address this gap, we have developed a rotation designed to teach SBP through immersive, brief practica across the full care continuum. Unlike our other rotations, which are centered around the physician's role, this innovative rotation pairs residents with other critical stakeholders who contribute to delivering high-quality care.

EVALUATION PLAN: Formal rotation evaluation and reflective essay by participating residents.

SUMMARY OF RESULTS: The rotation is structured around 16 distinct learning experiences spread over a two-week period. These experiences provide residents with hands-on exposure to key activities, including post-discharge home visits with nurses and therapists, ambulance ride-alongs, patient financial counseling at the infusion center, health coaching with paraprofessionals, and quality metric analysis with administrators. Notably, 50% of the experiences are led by non-physician licensed clinical staff, 30% by case management and social work teams, and 20% by administrative personnel.

Each intern resident participates in the rotation individually. Scheduling is coordinated through software linked to our institution's email network. This system ensures that both hosts and trainees receive automated communications outlining logistical details and learning objectives. At the conclusion of the rotation, trainees reflect on their experiences in an essay, identifying key insights and lessons learned.

REFLECTIVE CRITIQUE: This novel rotation offers a structured approach for teaching SBP by immersing residents in brief, diverse exposures across the care continuum. We believe these experiences equip residents with valuable insights that enhance their competence in care coordination, as aligned with the ACGME SBP milestones.

ABSTRACT #27

IMPLEMENTATION OF AN ADVANCED CARDIAC LIFE SUPPORT CURRICULUM FOR INTERNAL MEDICINE RESIDENTS AT MOUNT SINAI HOSPITAL

Swagata Patnaik, Sarita Sooklal

PURPOSE AND GOALS: At Mount Sinai's Internal Medicine residency program, Advanced Cardiovascular Life Support (ACLS) training consists of a 30-minute lecture with 1-2 brief simulations during the intern year. The next formal training session occurs prior to the third year, when residents are expected to take on the role of code leaders. Given the limited ACLS training during PGY2 year, when residents lead codes in the ICU, we conducted a needs assessment with rising PGY2 residents, who reported feeling uncomfortable leading codes. They expressed uncertainty about when to defibrillate and how to apply the Hs and Ts to determine the etiology of a code. Our goal was to develop an intervention—consisting of a lecture and case-based scenarios—to enhance PGY2 residents' knowledge, communication skills, and confidence in leading codes using the ACLS algorithm.

METHODS: We developed a one-hour ACLS review, delivered in a lecture format, covering key aspects of code management. The session included tasks to perform at the onset of a code, role assignment, extracting pertinent history from the one-liner, distinguishing between shockable and non-shockable rhythms, administering a shock, selecting medications during codes, and using the Hs and Ts to identify code etiology. A 20-question, 5-minute pre- intervention survey was administered to PGY2 residents, including five Likert scale questions on comfort and ten knowledge-based questions. After the ACLS curriculum review, residents completed a 19-question post-intervention survey.

EVALUATION PLAN: The pre and post intervention survey results will be analyzed for difference in mean scores and overall percentage correct. Changes in scores will be tested by Wilcoxon signed-rank test to compare matched tests. P-values will be calculated to determine whether a significant difference exists across the pre and post intervention groups.

SUMMARY OF RESULTS: While data collection is ongoing, preliminary results show promising outcomes. For Likert scale questions on comfort, post-survey responses showed a 1.3-1.5 point increase (out of 6). Regarding knowledge-based questions, post-survey results showed an average accuracy rate of 86%, compared to 69% in the pre-survey.

REFLECTIVE CRITIQUE: A limitation of this study is the small sample size, which reduced statistical power. Contributing factors included low resident participation in both the pre- and post-surveys, as well as limited time within the residency schedule to offer this training to a large group simultaneously. Overall, we present a meaningful and easily standardizable intervention that appears to have significantly improved internal medicine residents' confidence and comfort levels, as well as their overall ACLS knowledge when leading codes. The next step will be to incorporate an in-person simulation session to allow residents to apply their learned skills to specific cases.

ABSTRACT #28

CASE-BASED LEARNING IN ACTION: ELEVATING RESIDENT KNOWLEDGE ON ACHALASIA DIAGNOSIS AND MANAGEMENT

Ines Varela Knorr, Swati Patel, Daniela Jodorkovsky, Priya Simoes

PURPOSE AND GOALS: Internal medicine (IM) residents often encounter variability in the depth and breadth of exposure to medical subspecialties due to their rotations across multiple clinical sites. This variability may contribute to challenges in board exam preparation, reflected in the nationwide decline in the first-time pass rate for the American Board of Internal Medicine (ABIM) Certification Exam, which dropped to 87% in 2023. To address this issue, we developed a targeted educational curriculum utilizing case-based learning to unify and enhance residents' understanding of high-yield gastroenterology (GI) topics frequently tested on the exam.

METHODS: We conducted a 10-question needs assessment focused on 'High Importance' topics from the ABIM blueprint to evaluate familiarity with core GI subjects among residents at a large internal medicine program spanning multiple hospitals and outpatient sites. Based on the results, we developed case-based lectures targeting topics with the lowest familiarity. Each session consisted of one hour of protected educational time, covering two topics in 30- minute segments. Each topic was introduced through a clinical case, fostering open discussion among residents on differentials and management strategies. In the final 5 minutes, key points from the discussion were reiterated and expanded for clarity.

EVALUATION PLAN: Residents' knowledge was assessed using pre- and post-learning assessments administered immediately before and after each lecture. The survey responses were analyzed by categorizing questions into those answered correctly and those answered incorrectly. P value was calculated using Fisher's exact test.

SUMMARY OF RESULTS: Of the 35 second- and third-year residents who completed the needs assessment, 77% (27 residents) reported feeling unfamiliar or somewhat unfamiliar with the diagnosis and management of upper GI motility disorders. Nineteen residents attended our case-based lectures. In the pre-assessment, 10 out of 19 residents (52.63%) correctly answered an ABIM-style question assessing knowledge of achalasia diagnosis and management. Following the intervention, 13 out of 15 residents (86.67%) answered the same question correctly. Statistical analysis yielded a p-value of 0.06.

REFLECTIVE CRITIQUE: Case-based learning is a highly effective teaching modality in healthcare education, particularly suited to addressing gaps caused by variability in clinical exposure. In this study, we observed an improvement in participants' knowledge of achalasia diagnosis and management following our lectures. However, the study's impact was limited by a low number of residents completing both the needs assessment and the pre- and post-learning assessments, which likely contributed to the lack of statistical significance in the p-value. Future research should compare case-based learning with other educational approaches and evaluate its impact on long-term knowledge retention.

ABSTRACT #29

NEAR-PEER FACILITATED MOCK ORAL BOARDS AT EMERGENCY MEDICINE RESIDENCY CASE CONFERENCE

Elizabeth Yim, Jeena Moss, Edward Diaz, Christopher Richardson

PURPOSE AND GOALS: Graduating residents at our 3-year EM residency program identified oral boards exposure and preparedness as a deficiency in our Annual Program Evaluation. At the monthly case conference, residents present cases to peers and faculty. Cases are currently prepared and delivered informally, with high variability. We implemented a standardized preparation template mirroring that of the oral boards cases to increase exposure to, familiarity with, and preparedness for the exam. We hypothesized this template would improve performance and confidence during our bi-annual Mock Oral Boards Day (MOB).

METHODS: Residents participated in a MOB day while faculty evaluated their ability to perform a complete history/ exam, communicate clearly, manage pain and other symptoms, and demonstrate understanding of pathophysiology. In January 2024, we implemented the template, incorporating critical actions in the new format. In spring, we held a follow-up MOB Day with the same metrics. Residents created a unique identifier and completed an 8-item Likert-style pre- and post-intervention survey to gauge familiarity, perceived value of case conference, and confidence in identifying critical actions using a 5 point Likert scale.

EVALUATION PLAN: Pre- and post-intervention MOB Day metrics and survey results were analyzed with chi-square and paired t-tests respectively.

SUMMARY OF RESULTS: We analyzed data for 43 residents in MOB 1 and 28 residents in MOB 2. Eleven respondents completed both pre-and post surveys. We saw statistically significant improvement in history taking (79% vs 96%, $p=0.04$) and general oral boards success (82% vs 90%, $p=0.035$) between MOB Days. Residents reported a statistically significant increase in familiarity with the oral boards format (pre $M = 2.55$, $SD = 0.82$; post $M = 3.64$, $SD = 0.67$, $p < 0.05$), confidence in identifying critical actions (pre $M = 2.64$, $SD = 1.16$; post $M = 3.45$, $SD = 0.82$, $p < 0.05$), and perceived value of the new case conference format (pre $M = 3.64$, $SD = 0.81$; post $M = 4.36$, $SD = 0.50$, $p < 0.05$).

REFLECTIVE CRITIQUE: Strengths of our study include that we evaluated both faculty-rated resident performance and residents' self-rated confidence in completing standard cases and structured interviews. Limitations include that our study's participants varied from who was evaluated in the pre- and post- Mock Oral Boards Day cases due to scheduling limitations and our relatively small study size of residents who completed both the pre- and post- intervention needs assessment survey. Looking forward, though the oral boards component of Emergency Medicine board certification is changing, our study demonstrates the utility and effectiveness of peer facilitated case conference in improving confidence and preparedness for simulated cases and can be used as a model for future board examinations preparation.

ABSTRACT #30

TEACHING TO IMPROVE RESIDENT KNOWLEDGE ON SCREENING FOR BARRETT'S ESOPHAGUS: A TARGETED CURRICULUM FOR HIGH-IMPACT LEARNING

Swati Patel, Ines Varela Knorr, Michael Smith, Priya Simoes

PURPOSE AND GOALS: Internal medicine (IM) residents at Mount Sinai Morningside-West make up the largest Internal Medicine residency program in the country with over 200 residents. They care for patients across two hospitals and five clinic sites, leading to a variability in experience and exposure. The American Board of Internal Medicine Certification Exam (ABIM) first-time pass rate has declined nationally over the past five years, dropping to 87% in 2023. To address this, we designed and created. a targeted educational curriculum to unify and strengthen residents' understanding of commonly tested gastroenterology (GI) topics.

METHODS: We conducted a 10-question needs assessment targeting 'High Importance' topics from the ABIM blueprint to evaluate familiarity with core GI subjects at a large IM residency with training at two hospitals and five outpatient sites. Based on the results, we developed interactive case-based lectures addressing topics with the lowest familiarity. These cases were presented at dedicated half-day academic sessions.

EVALUATION PLAN: Atendees of the Academic half day session were given a pre asessment with ABIM like questions prior to the session. After the session residents' comfort level was asessed and the same pre-asessment questions were presented in a post asessment survey.

SUMMARY OF RESULTS: Of the 36 PGY-2 and PGY-3 trainees who responded to the needs assessment, 25 (69%) reported being unfamiliar or only somewhat familiar with the diagnosis and management of premalignant and malignant disorders of the GI tract. In the pre-assessment, 7 out of 19 residents (37%) correctly answered an ABIM- like question evaluating knowledge regarding Barrett's esophagus (BE) screening. On the post-assessment questionnaire, all residents (100%) answered the same question correctly. A two proportion Z test resulted in a p- value of 0.00013. In the post-assessment questionnaire, 11 out of 14 residents (79%) reported being "comfortable" or "very comfortable" and three residents (21%) reported being "somewhat comfortable" with the diagnosis and management of neoplastic esophageal disorders. No residents reported being "uncomfortable" with this topic.

REFLECTIVE CRITIQUE: This study addressed trainee knowledge gaps by creating a targeted curriculum based on resident familiarity tailored to "high importance" test topics. Following interactive lectures delivered during dedicated educational sessions, there was a statistically significant improvement in the proportion of correct responses regarding appropriate BE screening. Study limitations include variability in resident attendance at the educational sessions, given a lack of compulsory attendance. and a low percentage of respondents. Additionally, the study did not assess long-term knowledge retention, which remains an area for future investigation.

ABSTRACT #31

CONSTRUCTING A TARGETED CURRICULUM USING GAMIFICATION OF TOPICS TO ADDRESS KNOWLEDGE GAPS EVIDENCED BY THE CREOG IN-SERVICE TRAINING EXAM

Daniel Kuhr, Nicola Tavella, Katherine Chen

PURPOSE AND GOALS: Examine to see if gamification of topics improves performances on those topics' questions on the CREOG in-service training exam.

METHODS: The OB/GYN residency program consists of 8-9 residents per class. The 2024 ITE performance by topic and aggregated by class was provided by the residency program director to select topics for curricular development. Individual learner performance was not and is not accessible to the study team. The residency program director has agreed to provide the same data for the 2025 ITE for comparison.

Residents will be given educational content at their scheduled weekly didactics for a total of three sessions. The topics will include Physiology of Pregnancy, Nausea and Vomiting of Pregnancy and VTE and Thrombophilia in Pregnancy (to be given in the same session), and Selected Topic Reviews. The first three were deemed the most important to merit their own sessions after consulting with the OB/GYN education chief residents. All sessions will feature a Jeopardy game developed using JeopardyLabs (www.jeopardylabs.com). Residents will be divided into four teams and asked to mix so there is a roughly equal distribution of PGY-1s, -2s, -3s, and -4s on each team.

EVALUATION PLAN: After the ITE is administered in January 2025, the residents will be sent a survey (see attached) asking how helpful they felt the gamified curriculum was for each topic. We will also compare the 2024 and 2025 performance between topics that appear on both years' exams. The primary outcome is aggregate performance on ITE questions on topics reviewed in the curriculum. Secondary outcomes include performance broken down by class. We will also compare the PGY-2s, -3s, and -4s and their performance on the topics as PGY-1s, -2s, and -3s, respectively. Finally, the residents' perceived helpfulness of the curriculum will be assessed through the survey described above, which will be administered online via REDCap secured email to preserve privacy.

SUMMARY OF RESULTS: The project is ongoing but should be completed by March 2025 after the residents' performance on the CREOG ITE is delivered to the residency program.

REFLECTIVE CRITIQUE: We anticipate that this project will lead to both improved performance on the selected topics and also higher satisfaction with how the material was presented/reviewed than with traditional lecture methods. By going over these topics in a Jeopardy game format, we are engaging the learners in a more active manner as well as setting up cognitive scaffolds for them to learn the information when they later review the material (again).

ABSTRACT #32

NICU FOUNDATIONS: IMPROVING CONFIDENCE AND KNOWLEDGE FOR PEDIATRIC FIRST-YEAR RESIDENTS

Rachel Wilkinson, Katherine Dalldorf, Caroline Massarelli

PURPOSE AND GOALS: Many pediatric interns begin residency with very little neonatology exposure, making the role of front-line provider in the neonatal intensive care unit especially challenging. This lack of neonatology-specific preparation, combined with the high-stakes and fast-paced nature of a Level IV NICU, may contribute to a high level of resident stress and low self-efficacy. Prior studies on neonatology curricula in residency largely focus on more advanced topics for senior residents rotating in the NICU, or simulation-based curricula focused on a single pathology. There is little in the literature describing preparatory curricula on the broader range of topics interns are expected to know as front-line providers in the NICU. The goal of this intervention was to develop a targeted educational intervention for first-year residents rotating in the NICU to improve both confidence and knowledge in providing essential neonatal care.

METHODS: We designed a two-hour, case-based boot camp to train small groups of first-year residents on core neonatology topics before starting their NICU rotation. Cases included: nutrition in the preterm neonate, hypoglycemia, abdominal distension, respiratory distress syndrome, bradycardia and desaturations, and transient tachypnea of the newborn. Sessions have been conducted quarterly in small groups (4-5 interns) and designed to be highly interactive.

EVALUATION PLAN: Participants were given pre- and post-tests to evaluate both their self-assessed confidence to be front-line providers as well as their knowledge of core topics.

SUMMARY OF RESULTS: Thirteen interns have participated in this curriculum and completed the pre- and post-tests. Six of thirteen residents reported less than two weeks of NICU exposure before starting residency. Self-assessed confidence in managing fluids and nutrition increased from an average of 1.5 on the Likert scale to 3.2, and confidence in managing non-invasive respiratory support increased from 2.1 to 3.3 (scale 1 to 5, with 1 being “not at all confident” and 5 being “very confident”). Medical knowledge also increased substantially, from 60% correct on the pre-test to 93% on the post-test. Qualitative feedback was uniformly positive, with several interns commenting specifically on the value of case-based examples compared to a more lecture-based format and the focus on practical skills like calculating total fluid requirements for neonates.

REFLECTIVE CRITIQUE: The NICU Foundations bootcamp led to significant increases in both self-assessed confidence and medical knowledge of core NICU topics. This pilot project demonstrates the efficacy and feasibility of a bootcamp- style intervention for first year residents delivered shortly before their NICU rotations. Future directions include integrating simulation-based learning, delivery room management, and evaluating long-term impacts on performance during NICU rotations.

ABSTRACT #33

OUT OF SIGHT, OUT OF MIND: HARNESSING THE POWER OF POST-HOSPITALIZATION OUTCOME AUDIT

Daniel Mozell, Simrat Batth, Jay Naik, William Preston, Sreekala Raghavan, Julie Kanevsky

PURPOSE AND GOALS: Evaluating a patient's post-hospitalization course is critical feedback for refining future diagnostic and therapeutic decisions, yet it rarely happens formally during residency. The Out of Sight, Out of Mind (OOSOOM, pronounced like "awesome") conference addresses this gap. The goal of this conference is to provide a structured forum for residents to review post-discharge outcomes of the patients they managed and with coaching, share them with colleagues, focusing on lessons learned and changes they would implement in their practice as a result.

METHODS: We created an easy-to-implement, resident-led conference to review post-hospitalization outcomes. Residents are given lists of patients that they discharged in the previous six months and select one case to present at an OOSOOM conference. Four residents present their cases at each conference. Each presenter reviews five to ten patients who have post-hospitalization outcome data available in the EMR. We encourage them to gather additional information by calling patients. They are asked to pay special attention to patients whose post-hospitalization course differs from the team's expectations at the time of discharge. Each resident creates a presentation using de-identified patient information, and we coach them to describe lessons they learned and changes they would make in their future practice.

EVALUATION PLAN: We studied the effect of OOSOOM by administering a retrospective pre/post survey immediately following the first four conferences and a follow-up outcome survey two to four years after participation in OOSOOM.

SUMMARY OF RESULTS: Prior to OOSOOM, only 8% of residents reported reviewing their patients' post-hospitalization progress "often" or "always." After the conference, 41% of residents said they would "probably" or "definitely" review their patients' outcomes. In the follow-up outcome survey, of the residents who had attended at least one OOSOOM conference during residency, 45% reported reviewing patients after they leave their care "often" or "always" as part of their current practice compared to 22% of residents who had not attended an OOSOOM conference. These results suggest that there may be practice-changing value in such conferences.

REFLECTIVE CRITIQUE: The format of OOSOOM achieves the dual goals of giving residents an opportunity to reflect on their practice and cultivating the habit of auditing post-hospitalization outcomes. OOSOOM also identifies opportunities for quality improvement projects and builds medical knowledge via experiential learning. Many choose to focus on diagnostic feedback, resulting in discussions more conducive to learning. In addition, unlike a traditional M&M, the outcomes residents discuss are often only uncovered by their review of post-hospitalization records rather than being reported in a quality or mortality review. Having this freedom allows residents to direct their own learning and influence their colleagues, thus advancing the overall goal of inspiring lifelonglearning.

ABSTRACT #34

PRELIMINARY RESULTS FROM A NOVEL SURGICAL ETHICS CURRICULUM FOR GENERAL SURGERY RESIDENTS

Steven Char, Rosamond Rhodes, Alex Agathis, Celia Divino

PURPOSE AND GOALS: Surgeons encounter and must navigate a unique set of ethical challenges in their daily practice. Despite increasing recognition of the field of surgical ethics—distinct from general medical ethics—and despite enthusiasm for a national surgical ethics curriculum, no such curriculum yet exists. We created a dedicated surgical ethics curriculum for general surgery residents to address this deficit.

METHODS: We conducted a needs assessment to characterize baseline resident attitudes towards surgical ethics and comfort levels with key ethics topics. Attitudes were measured on a 5-point Likert scale. We then designed six modules aimed at addressing the needs identified by the residents. Modules consisted of a twenty-minute didactic session on a surgical ethics principle led by a surgical resident in conjunction with a faculty ethicist, followed by a small-group discussion of a surgical case related to that principle. Three of six modules have been taught thus far.

EVALUATION PLAN: We conducted an interval post-intervention survey to assess the impact of the curriculum on resident confidence thus far. Changes in confidence levels were assessed using t-tests.

SUMMARY OF RESULTS: 50 participants completed the needs assessment. Despite agreement that surgical residents frequently encounter ethical challenges, only 29% of participants felt they could systematically evaluate and resolve a novel ethical dilemma. Participants were most confident in their ability to resolve dilemmas surrounding obtaining informed consent, communicating a serious prognosis, and explaining to patients their degree of participation in the operating room. Residents felt least confident managing dilemmas pertaining to treatment over objection, requests for medically unindicated interventions, and disagreements with more senior colleagues. Participants agreed that the curriculum thus far has been valuable (71%) and relevant (88%) to their training. We identified significant improvement in confidence in each of the topics discussed thus far: analyzing a novel dilemma in a systematic fashion ($p < 0.001$), capacity assessment ($p = 0.005$), and treatment over objection ($p = 0.007$).

REFLECTIVE CRITIQUE: We identified the ethical challenges that our general surgery residency program finds most vexing and have designed a longitudinal, resident-led curriculum to address these topics. Early results suggest that the curriculum is successful in increasing resident confidence in these domains.

ABSTRACT #35

SURGICAL RESIDENT SIMULATION OF TRAUMA PROCEDURES: A MID-COURSE ANALYSIS

Michelle L. Shu, Alex Agathis, Jeanne Wu, Navin Bhatia, Celia Divino

PURPOSE AND GOALS: A crucial component of surgical education involves simulating techniques prior to real-life application. Trauma "Cut Suit" (Strategic Operations) is a simulation that allows residents to practice triaging patients in the trauma bay, from assessing their A-B-Cs (airway, breathing, and circulation), determining necessary interventions, and performing required procedures. While prior studies have examined the utility of the "Cut Suit" model in simulating abdominal trauma, our simulation incorporates a thoracic component, allowing for additional training in managing cardiothoracic injuries. Thus, we sought to study resident comfort level and knowledge before and after simulation sessions.

METHODS: This is a prospective observational study involving surgical residents from postgraduate levels (PGY) 1 to 5 at an academic institution, from August to December 2024. A patient case is simulated with a vignette, real-time vital signs, and thoracic and abdominal injuries with active bleeding for residents to perform indicated procedures on.

Before and after each session, residents were asked about their prior trauma experience and level of comfort (on a Likert 1-5 scale) performing various trauma interventions.

EVALUATION PLAN: Analysis was performed on mid-year data. Residents within the same PGY levels were compared. Pre- and post-course survey scores were compared using unpaired t-tests.

SUMMARY OF RESULTS: A total of n=19 residents were surveyed, which included PGY-1 (n=4), PGY-2 (n=4), PGY-3 (n=3), PGY-4 (n=4), PGY-5 (n=4). Two procedures showed the most improvement in knowledge of steps: pulmonary wedge resection and aortic-cross clamping. For wedge resection, scores increased from a mean of 1.25 (SD 0.50) to 3.75 (SD 0.50) for PGY-1s ($p<0.01$), 1.50 (1.00) to 4.00 (0.82) for PGY-2s ($p=0.01$), 1.33 (0.58) to 4.00 (0.00) for PGY-3s ($p=0.02$), 2.75 (1.71) to 4.67 (0.58) for PGY-4s ($p=0.11$), and 3.00 (0.82) to 4.50 (0.58) for PGY-5s ($p=0.03$).

For aortic cross-clamping, PGY-1s, 2s, and 5s had statistically significant improvements from 1.25 (SD 0.50) to 2.75 (SD 0.50) ($p=0.01$), 1.75 (0.96) to 3.50 (0.58) ($p=0.03$) and 3.25 (0.50) to 4.25 (0.50) ($p=0.03$), respectively. There was no statistically significant increase in comfort with bowel resection, tube thoracostomy, or with performing primary and secondary surveys. However, the values do show a positive trend, as comfort levels are shown to increase after the course and with each subsequent year in surgical training.

REFLECTIVE CRITIQUE: Our preliminary results show an improvement in confidence with performing various procedures. This relationship was strongest and statistically significant for pulmonary wedge-resection and aortic cross-clamping but similar trends existed for various other trauma procedures. The limited statistical significance is likely due to small sample size, especially considering subset analyses were performed by PGY level. While our results are early, the already apparent improvements in confidence are promising for the remainder of this year'scourse.

ABSTRACT #36

"DOC, WHAT'S THE NEWS?": A COMMUNICATION SKILLS WORKSHOP FOR DIFFICULT CONVERSATIONS

Juana Martinez, Maria Parra, Hannah Hugo, Rebecca Ye

PURPOSE AND GOALS: Tactfully handling difficult conversations with patients and families is crucial for strengthening physician-patient relationships. This is particularly true for breaking bad news and goals of care discussions. They are complex communication tasks that can be challenging even for experienced physicians and can be especially stressful for trainees. The aim of our project is to train internal medicine residents to have difficult conversations including giving new diagnoses and prognosis, and goals of care discussion. We also plan to evaluate the efficacy of role play in communication skills training.

METHODS: Our educational intervention will provide internal medicine residents with a lecture on communication frameworks (e.g. FRAME, SPIKES, Three-Stage Protocol) to apply when approaching difficult conversations. After the lecture, residents will be divided into groups and will practice these skills using role play scenarios. Groups will be facilitated by faculty and peer instructors with the goal of practicing the approaches learned during the lecture.

EVALUATION PLAN: Learning efficacy will be evaluated by a scoring system adapted from the Mini-Clinical Evaluation Exercise (Mini-CEX). The evaluation system will be applied both before and after the educational session. It will also include a self-assessment of the residents on subjective performance, and direct feedback from workshop leaders.

SUMMARY OF RESULTS: Our pre-survey of residents at a safety-net hospital in New York City showed that only 20% (5/24) feel comfortable with breaking bad news and having difficult conversations. The project is still ongoing, and the post intervention results are not available.

REFLECTIVE CRITIQUE: Standardized patients and a dedicated simulation center can be effective but costly resources with limited availability. By contrast, role play is low-cost, and scenarios can be readily adapted to suit individual community needs. We plan to assess the efficacy of our workshop in helping residents feel more prepared for difficult or emotionally fraught conversations in the hopes of exploring more time- and cost-effective methods for improving communication skills in trainees.

ABSTRACT #37

A STUDY OF GENDER-BASED BIAS IN LETTERS OF RECOMMENDATION FOR PLASTIC SURGERY RESIDENCY

Brittany Sacks, Bernice Z. Yu, Jacquelyn Roth, Peter Taub

PURPOSE AND GOALS: Letters of recommendation (LORs) play a crucial role in residency evaluation. However, unconscious bias in language use within LORs subtly shape perceptions of candidates. This study examines how descriptors traditionally associated with genders are distributed in LORs.

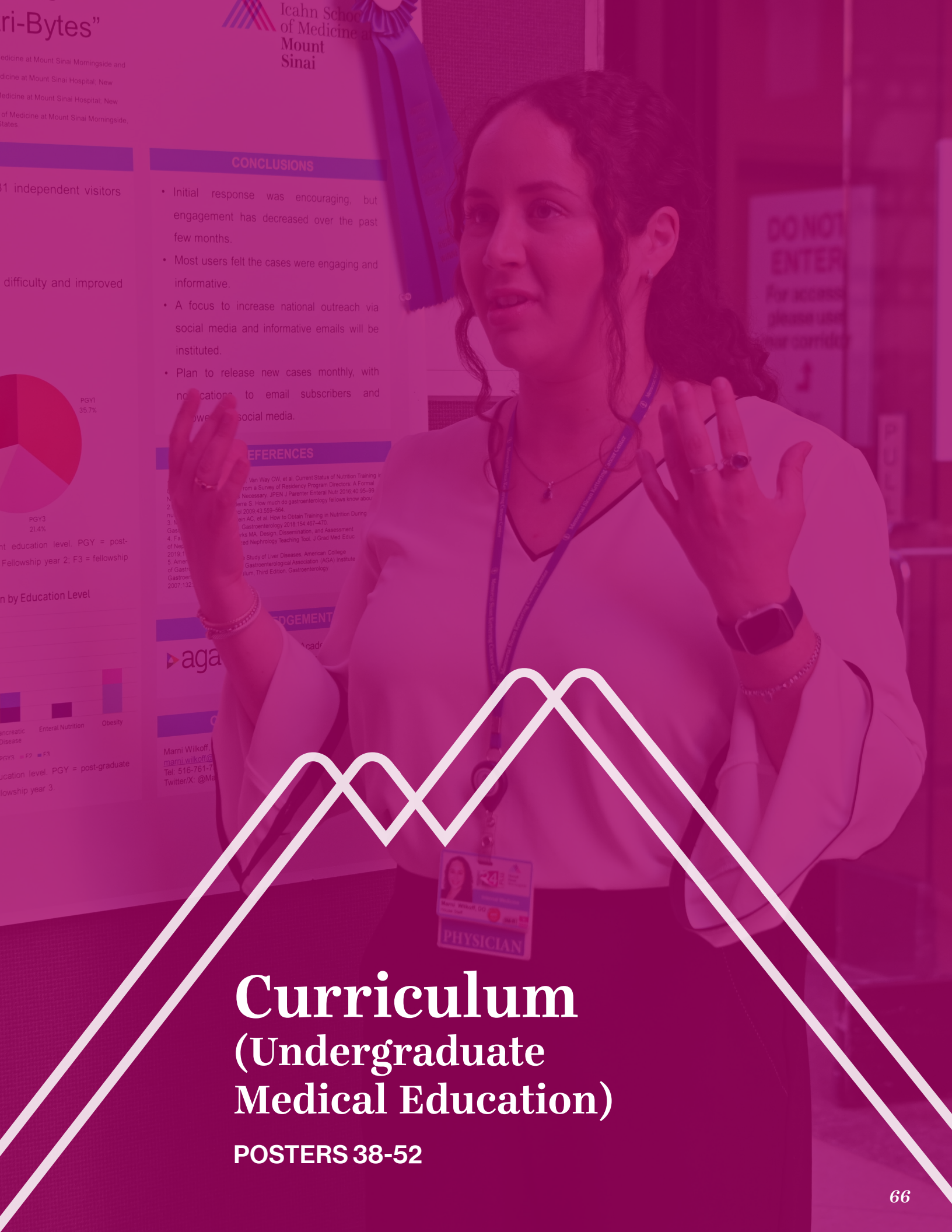
METHODS: A dataset of 118 de-identified LORs from plastic surgery applications (2017-2021) was analyzed using natural language processing. Commonly used descriptors were categorized into seven groups: female-associated, male-associated, standout, ability-focused, grindstone-focused, teaching-oriented, and research-oriented. For traditionally female and male descriptors, the authors used a published word bank of feminine- and masculine- associated terms curated for the medical field. All descriptors from the remaining five groups were drawn from established linguistic categories identified in prior research on LOR language.

EVALUATION PLAN: Letters were classified based on the candidate's gender, and descriptor frequencies were calculated as a percentage of each letter's total word count. Mean values of descriptor frequencies for each subgroup were analyzed using t-tests.

SUMMARY OF RESULTS: The cohort was composed of 42 letters for females and 76 for males. All findings showed potential directional significance but lacked statistical significance at this sample size. Teaching descriptors showed higher frequencies in letters for females (1.46%) vs. males (1.30%). Ability descriptors were also higher for females (0.72%) than males (0.60%). Standout descriptors were slightly more common in letters for males (0.81%) than females (0.68%), whereas grindstone descriptors, reflecting diligence and effort, were somewhat higher in letters for males (1.08%) vs. females (0.97%). Female-associated descriptors were only slightly more frequent in letters for males (1.78%) than females (1.67%), while male-associated descriptors were almost equal in frequency among females (1.52%) and males (1.44%).

REFLECTIVE CRITIQUE: The present study reveals there may be only limited unconscious bias in the way candidates are described in plastic surgery LORs. The findings highlight subtle differences in descriptor usage, suggesting that letter writers are limiting bias when describing candidates. Notably, descriptors traditionally associated with one gender are not significantly different, indicating successful initiatives to use more balanced language.

However, there remain some directional findings that may suggest disparities in a larger sample. For example, the higher frequency of teaching-related terms in letters for females may reflect gendered expectations in academia, where women are often associated with mentorship roles. These patterns may highlight opportunities for educational interventions to guide faculty in writing more equitable letters and to train readers to recognize and account for unconscious bias. Further conclusions will require larger, more comprehensive studies to better understand the underlying dynamics and implications.



Curriculum
(Undergraduate Medical Education)

POSTERS 38-52

ABSTRACT #38

STANDARDIZED NEUROSURGERY SUB-INTERNSHIP CURRICULUM TO ENHANCE MEDICAL STUDENT NEUROSURGERY KNOWLEDGE

Matthew T. Carr, Rui Feng, Peter Morgenstern

PURPOSE AND GOALS: Sub-internships are formative experiences for medical students applying into neurosurgery. However, the educational structure and quality can vary greatly both between and within institutions. To standardize the education at our institution we implemented a novel sub-internship curriculum with structured learning cases.

The objective of this study is to assess the effect of the standardized sub-intern neurosurgical curriculum on student's neurosurgical knowledge and satisfaction with the sub-internship.

METHODS: The neurosurgical sub-intern curriculum involved a half-hour weekly didactic session with an attending neurosurgeon and a weekly hour-long resident and attending-led didactic covering the same twelve learning cases for each rotation. Students were administered a twenty-question pre-test at the beginning of the rotation and a post-test after the rotation ended, as well as a survey assessing student attitudes towards the curriculum and sub-internship at the completion of the rotation.

EVALUATION PLAN: A paired t-test was used to analyze difference in mean correct responses between the pre- and post- tests for each individual student with a <0.05. Sub-intern evaluations were analyzed using descriptive statistics.

SUMMARY OF RESULTS: Eighteen students completed the pre-test and eighteen completed the post-test. The overall mean score for the pre-test was 14.8/20 (74.2%) with range 10-20, and the post-test was 14.9/20 (74.7%) with range 9-18. There was no significant difference between pre- and post-test (p=0.88). 15 students completed the sub- internship evaluation, and evaluations were overwhelmingly favorable regarding the curriculum. The average rating of the sub-internship overall was 4.9/5 (range 4-5), and ratings on "quality of educational conferences" were 5/5 for each respondent.

REFLECTIVE CRITIQUE: There was no notable improvement in neurosurgical knowledge between the pre- and post-test after the completion of the standardized curriculum. Student feedback regarding the sub-internship education was positive. This study suggests that instituting a standardized didactic curriculum for neurosurgical sub-internships is viewed favorably by medical students, but that perhaps in order to see an objective educational benefit the curriculum may need to be more extensive, or the curricular goals may need to be adjusted in future iterations.

ABSTRACT #39

THE STUDENT PERSPECTIVES INITIATIVE: INTEGRATING MEDICAL STUDENTS' PERSONAL EXPERIENCES OF ILLNESS INTO PRE- CLINICAL MEDICAL EDUCATION

Seth Bergenholtz, Elyse Olesinski, Sarah Horn, Ariel Hirsch

PURPOSE AND GOALS: Narrative medicine programs are a hallmark of pre-clinical medical education and contribute to promoting empathy, healing, and communication. However, to our knowledge, no structured program presently exists that allows medical students to share personal experiences with illness for the purpose of supplementing education of course material within the pre-clinical curriculum. The purpose of this study was to implement the Student Perspectives Initiative (SPI), a student-led program empowering medical students to integrate personal experiences of illness into the pre-clinical curriculum and to evaluate its impact on educational enhancement, community building, and humanism.

METHODS: The program took place at an academic institution in New England during pre-clinical training between 2020-2023. It consisted of 8-10 voluntary student presentations per year, each lasting 30-60 minutes with topics including Crohn's disease, breast cancer, and benzodiazepine use disorder. Voluntary peer attendance ranged from 25 to 160 students. For evaluation, we emailed an anonymous REDCap survey to all students (N=450) who had the program run within their pre-clinical curriculum. Survey questions included yes/no, 5-point multiple choice scale (1- strongly disagree to 5-strongly agree), and free text. Approximately 200 students (44%) engaged with the program (shared a story or attended sessions), and 52 of these students (26%) responded to surveys.

EVALUATION PLAN: We employed the Kirkpatrick framework (satisfaction, learning, behavior, results) to evaluate performance of the program. Quantitative and qualitative data were analyzed by central tendency analysis and review of thematic content, respectively.

SUMMARY OF RESULTS: We found that the SPI program was highly rated regarding pedagogical effectiveness. 95% of students agreed or strongly agreed that hearing peer stories was an effective pre-clinical educational tool (4.43/5), improved understanding of medical information (4.50/5), and increased interest in course topics (4.58/5). Further, students affirmed that hearing peer stories fostered community with 97.5% of respondents agreeing or strongly agreeing that they better understood their classmates (4.38/5). Of respondents who had completed clinical training at the time of survey completion, 83.3% agreed or strongly agreed that the talks improved their recall of clinical knowledge during clerkships (3.94/5) and 66.7% reported greater empathy (3.89/5) for patients.

REFLECTIVE CRITIQUE: This innovative program created a structured space for medical students to share personal experiences of illness and wield them for medical education at a peer-to-peer level. The program was widely considered to be an effective educational tool that positively impacted clinical knowledge, ability to connect with patients, and clerkship performance. Further directions include expanding the program to more medical institutions and implementing this style of education at more advanced levels of medical education.

ABSTRACT #40

MEDICAL STUDENT ATTITUDES AND KNOWLEDGE ON HEALTH INSURANCE AND PRESCRIPTION COSTS

Amanda Paredes-Barbeito, Lydia L. Wu, Jacob M. Appel, Lizzy Rueppel

PURPOSE AND GOALS: Many patients will often underuse prescription medications over cost concerns. Physicians' and medical students' understanding of health insurance coverage is, therefore, crucial, as it can impact prescribing practices. Existing literature indicates that healthcare providers lack robust knowledge regarding insurance coverage. One survey study conducted in 2000 by Reichert et al. showed that though physicians were motivated to be cost- conscious in their prescribing practices, their estimates of the cost of medications were only accurate 45% of the time. Several other studies have shown similar findings, suggesting a gap in providers' knowledge of insurance coverage and out of pocket costs. The healthcare landscape has evolved significantly since the time many of these studies were conducted; most notably, there has been an expansion of coverage through the Affordable Care Act, a shift toward value-based insurance models, and an increased emphasis on addressing health equity and disparities. Yet, there is limited recent research on medical students' knowledge on insurance coverage and prescription costs. This survey study aims to address this gap by assessing medical students' knowledge of health insurance coverage and drug cost, thereby providing insights that could inform targeted interventions to enhance prescribing practices and reduce financial barriers to care.

METHODS: We have designed a survey using a Likert scale to assess respondents' understanding of health insurance and prescription costs. The survey also includes a knowledge test on both topics. This survey will be disseminated to medical students of all years at the Icahn School of Medicine at Mount Sinai.

EVALUATION PLAN: Subgroup analyses will be performed to explore trends by academic year, gender, and other demographics. Results will be used to identify gaps in knowledge and perceptions, and provide useful insights for curricular improvement.

SUMMARY OF RESULTS: We hypothesize that we will find significant gaps in understanding and knowledge about prescription costs and health insurance systems, particularly among preclinical students. Additionally, we hypothesize that students will report limited confidence in addressing these topics, underscoring the need for targeted educational interventions.

REFLECTIVE CRITIQUE: A potential limitation of the study is its reliance on self-reported data which can be susceptible to biases. One of our concerns has been balancing survey fatigue, so as not to overburden respondents, with comprehensive questioning. As such, another limitation is the breadth of our knowledge check which does not exhaustively test each respondent's understanding of health insurance and prescription costs. Lastly, our survey will only be administered to students enrolled at the Icahn School of Medicine at Mount Sinai. While this will provide targeted feedback for potential interventions at our institution, the insights produced may not be generalizable to other institutions.

ABSTRACT #41

SCOPING THE FIRST AID KNOWLEDGE OF MOUNT SINAI MEDICAL STUDENTS

Elise Solazzo, Christopher Strother

PURPOSE AND GOALS: Basic first aid (FA) is life-saving. However, there is a paucity of research on U.S. medical students' knowledge of essential FA skills. Studies from international medical schools overwhelmingly demonstrate that medical students lack these basic skills, but are willing to learn. Given the stark differences between American undergraduate medical education and international systems, this data may not apply to students at the Icahn School of Medicine at Mount Sinai (ISMMS). We aim to describe ISMMS students' knowledge of FA.

METHODS: We distributed a survey to MD students at ISMMS via class-specific email listservs, asking students to rate their comfort performing 11 FA interventions on a 5-point scale. We also asked their medical school class year and to share if they had any relevant experiences that may impact their knowledge of FA.

EVALUATION PLAN: We categorized students as either "comfortable" (4/5 or 5/5) or "uncomfortable" (1/5 or 2/5) with each intervention based on survey responses. We then used Fisher's exact test to assess for significant differences in comfort between groups of students.

SUMMARY OF RESULTS: We received 92 responses (19.1% response rate). 34 (37.0%) respondents were M1s, 27 (29.4%) were M2s, 13 (14.1%) were M3s, and 18 (19.6%) were M4s. 63 (68.5%) had no prior first aid experience, 15 (16.3%) reported previous certification as an EMT or paramedic, 10 (10.9%) reported other prior first aid training such as Basic Life Support or Wilderness First Responder, and 4 (4.4%) reported personal experience such as having an allergy requiring an epi-pen. The number of students comfortable with each skill was low: naloxone use 54.4%, epinephrine auto-injector use 50.0%, scene safety 50.0%, chest compressions 45.7%, airway positioning 41.3%, automated external defibrillator use 35.9%, noninvasive positive-pressure ventilation 34.8%, tourniquet use 34.8%, patient assessment 32.6%, cervical spine stabilization 22.8%, and Heimlich maneuver 22.8%. We found no significant difference between preclinical and clinical students' comfort for any skill except assessment ($p=1.80E-4$) and airway positioning ($p=6.01E-3$). 58.1% of clinical students reported comfort with those skills. Students with prior FA certification were significantly more comfortable with all skills except patient assessment and naloxone use.

REFLECTIVE CRITIQUE: We found that ISMMS students lack comfort with FA and that comfort does not improve with time in school. Further study regarding the impact of previous experience and clinical rotations is needed. The most significant limitation of this study is that student-reported comfort in their ability to perform FA interventions does not necessarily equate to students' ability to correctly perform these skills. Nevertheless, an intervention to address this lack of comfort is warranted.

ABSTRACT #42

CREATING A FIRST AID COURSE FOR PRECLINICAL MEDICAL STUDENTS

Elise Solazzo, Vanya Zvonar, Michael Redlener, Christopher Strother

PURPOSE AND GOALS: First aid (FA) and early stabilization of the sick and injured is a key skill for doctors. We sought to teach FA skills to preclinical medical students, as there is currently no formal FA training for medical students at the Icahn School of Medicine at Mount Sinai.

METHODS: One 90-minute course with a 10-minute introductory lecture on patient assessment and scene safety, followed by two alternating 40-minute stations: Stop the Bleed® and chest compression/automated external defibrillator (AED) training. When one station finished before the other, there were also epinephrine auto-injectors and Naloxone trainers for students to practice with under instructor supervision. The course was taught by an attending emergency medicine (EM) physician, 3 EM residents, and a medical student who is an Emergency Medical Technician. The course was administered to 6 first-year medical students in the EM Nexus course.

EVALUATION PLAN: Students were given a pre- and post-course survey asking their comfort with 11 basic FA interventions on a 5-point scale. The post-course survey also asked students to rate the length of the course, breadth of skills covered, and importance of FA instruction in preclinical medical education. We defined students as "comfortable" with any skill they rated 4/5 or 5/5.

SUMMARY OF RESULTS: In the pre-course survey, students' levels of comfort varied widely; 75% of students were comfortable with tourniquet use, 62.5% determining scene safety, 62.5% with epinephrine auto-injector use, 50.0% with airway positioning, 50.0% with chest compressions, 37.5% with non-invasive positive pressure ventilation (NIPPV), 37.5% with naloxone administration, 25.0% with AED use, 25.0% with manual cervical spine stabilization, 12.5% with the Heimlich maneuver, and 12.5% with performing a primary assessment. After this class, 100% of students were confident in determining scene safety, performing chest compressions, using an AED, NIPPV, applying a tourniquet, using an epinephrine auto-injector, and administering naloxone. 83.3% of students were comfortable with manual cervical spine stabilization, airway positioning, and the Heimlich maneuver. 66.7% of students were comfortable performing a patient assessment. Responses indicate that this class is an appropriate length and teaches an acceptable breadth of FA skills without covering too many at once. All respondents strongly agreed that basic FA should be a mandatory part of the preclinical curriculum at ISMMS.

REFLECTIVE CRITIQUE: Our sample of students enrolled in the Emergency Medicine Nexus class is small and nonrandom, and it remains unclear if this class is generalizable to the medical school at large. However, this pilot class indicates that a 90-minute FA class can improve preclinical medical students' comfort with basic FA, and students strongly desire FA instruction. We plan to repeat this class for more medical students to better assess its viability and impact.

ABSTRACT #43

EXPLORING PROFESSIONAL IDENTITY FORMATION IN INTEGRATED GERIATRICS/PALLIATIVE CARE FELLOWS

Laurel Hansen, Vanessa Rodriguez

PURPOSE AND GOALS: Applications for geriatrics fellowship are declining, while the number of older adults with complex care needs continues to grow. To stimulate applicant interest, an innovative two-year Integrated Geriatrics-Palliative Care track was created at Icahn School of Medicine at Mount Sinai (ISMMS) that has been replicated at 10 institutions. While the clinical overlap between these two fields seems organic, Integrated graduates experience difficulty developing their professional identity (PI) leading to challenges when pursuing employment. They report having to choose between fields when institutions do not offer Integrated positions. We set out to better understand PI and career challenges with a goal of developing a PI curriculum for our Integrated fellowship.

METHODS: Two interview scripts were developed for current Integrated fellows and recent graduates. For current fellows, questions explore prior introduction to the concept of PI, comfort level in describing this identity, and anticipated challenges in job and career planning. Graduates were asked about their career paths to date, PI development during and after training, and areas of strength and opportunities for improvement within the program. Interviews are conducted and recorded over zoom and transcribed anonymously. Transcripts are analyzed for themes and feedback to inform the curriculum.

EVALUATION PLAN: Through interviews with recent and current Integrated fellows, we aim to identify themes to guide development of a professional identity curriculum for our innovative Integrated fellowship. After creation of this curriculum, a post-intervention survey will be used to collect feedback from current integrated fellows at the end of their two-year fellowship.

SUMMARY OF RESULTS: 7 graduates and 10 current fellows have been interviewed to date. Interviews reveal several relevant themes, including importance of strong mentorship throughout fellowship, benefit of working with attending physicians who trained in both specialties, concerns about assuming the role of attending physician, and what to look for in a job after graduation.

REFLECTIVE CRITIQUE: Upon evaluation of transcripts, most fellows were not familiar with the concept of professional identity but many confirmed the difficulties they experience in deciding between which field to pursue if integrated positions are not available in the current job market. Multiple current and past fellows also noted the importance of hearing from recent Integrated graduates about their career paths. Given this theme, a well-attended "Integrated Fellow Career Panel" was organized for current fellow to hear how graduates have utilized their integrated training. This intervention represents the first part of what is planned to be a four-session professional identity curriculum over the two years.

ABSTRACT #44

EXAMINING ATTITUDES TOWARDS IMPLEMENTING ULTRASOUND EDUCATION ACROSS TRAINING STAGES AND SPECIALTIES

Nicole Parkas, Jamie Frost, Bethany DuBois, Nicola Tavella, Richard Stern, Reena Karani, Chelsea DeBolt

PURPOSE AND GOALS: Research focused on ultrasound (US) education has increased sevenfold from 2010 to 2020, reflecting a growing interest in incorporating ultrasound training into undergraduate medical education (UME). This study examines attitudes concerning the optimal timing to implement expert-developed curricular content across medical training stages and specialties.

METHODS: An anonymous online survey was distributed via email at a single academic institution from June to October 2024. Medical students, attending physicians, and residents and fellows in ultrasound-intensive specialties (Internal Medicine [IM], Emergency Medicine [EM], Obstetrics/Gynecology [Ob/Gyn] and Radiology) were included. We excluded attending physicians with minimal ultrasound use and/or absence of a teaching role. The survey evaluated attitudes on US education and the optimal learning stage (preclinical, clinical, resident, fellow, or never) for 111 US skills. Students received a simplified version of the physician survey and all responses were analyzed.

EVALUATION PLAN: The primary outcome was to determine consensus on optimal timing for learning ultrasound skills. We further investigated differences in attitudes across training stages and specialties. When > 50% of respondents agreed on a single learning stage, it was considered consensus. When no single stage exceeded 50%, but the top two responses were sequential in training order (e.g., preclinical to clinical), it was classified as a joint learning stage.

When the top two responses were not in sequential training order, it was classified as no consensus. De-identified data were analyzed using R and Microsoft Excel.

SUMMARY OF RESULTS: 65 attendings, 98 residents and fellows, and 77 medical students responded to the survey. Of 111 skills compared, attendings and residents and fellows agreed on 46 (41.4%). When disagreeing (65/111), residents and fellows often (45; 69.2%) chose earlier stages than attendings. Residency was cited 90 times by attendings (81.8%), 64 for residents and fellows (57.7%), and 4 for students (4/30; 13.3%). Fellowship was chosen for 10 skills (9%) by attendings but never by residents, fellows, or students.

There was no consensus across specialties on appropriate training stages. Ob/Gyn and Radiology physicians frequently selected later stages, with 85.6% and 74.8% of responses choosing residency, and 39.6% and 5.4% choosing fellowship, respectively. In contrast, IM and EM physicians favored earlier stages, with 27.0% and 18.9% of responses choosing preclinical training, and 79.3% and 80.2% choosing clinical medical school.

REFLECTIVE CRITIQUE: Earlier-stage trainees favored learning ultrasound skills sooner, while specialties with advanced technical ultrasound applications (Ob/Gyn, Radiology) preferred later training. These findings reveal varied attitudes toward ultrasound education and offer insights to guide the creation of a standardized, longitudinal ultrasound curriculum for UME.

ABSTRACT #45

USING A HACKATHON APPROACH TO INTEGRATE ADVOCACY, SOCIAL JUSTICE, AND ANTI-OPPRESSION THEMES INTO MEDICAL EDUCATION

Salwa Najmi, Ravishankar Ramaswamy, Leona Hess

PURPOSE AND GOALS: Preclinical biomedical courses often lack emphasis on Advocacy, Social Justice, and Anti-Oppression (ASA) themes. The redesigned ASCEND curriculum at the Icahn School of Medicine at Mount Sinai provided an opportunity to integrate these concepts into preclinical modules. We adopted a virtual hackathon approach to address the challenge of effectively incorporating ASA themes, which encompass diverse subthreads such as climate change, community health and engagement, global health, health equity, and underserved populations. The goal of our project was to utilize the hackathon approach to engage multiple stakeholders across the health system to contribute to the integration of ASA into the preclinical curriculum.

METHODS: A core team communicated with module directors to obtain course material that would be appropriate for integration of ASA concepts, focused specifically within clinical correlation small group (CCSG) cases. Stakeholders identified by The Institute for Equity and Justice in Health Sciences Education were invited to participate in virtual hackathons. A virtual hackathon format, lasting 1–2 weeks each, was implemented. Initially focused on the MCG module in July 2024, subsequent hackathons were conducted for the Immunology-Microbiology module in October 2024 and the Neuroscience and Behavioral Science module in December 2024. Participants submitted content via a standardized form aligned with ASA sub-threads. Listening sessions refined these proposals, which were then evaluated for feasibility and alignment with ASA objectives. The core team then provided a succinct set of recommendations to module directors to consider for integration in their modules.

EVALUATION PLAN: Effectiveness was assessed through participant feedback, the feasibility of implementing ASA- aligned materials, and the quantity and quality of generated recommendations. The interdisciplinary participant pool provided robust input, enhancing the quality of curricular innovations.

SUMMARY OF RESULTS: Participation grew with each hackathon: 33 participants for the MCG module, 42 for the Immuno-Micro module, and 44 for the Neuroscience and Behavioral Science module. These participants, 17 students and 25 faculty, spanned 12 departments / divisions within the MSHS. Across these hackathons, participants submitted proposals which the core team refined into 20 recommendations. Module directors made 7 integrations, with more pending review. Feedback surveys showed high satisfaction and praised the process as an inclusive and collaborative innovation tool.

REFLECTIVE CRITIQUE: The hackathon model facilitated interdisciplinary collaboration and generated scalable solutions for integrating ASA themes into medical science education. However, reliance on informal feedback and early-stage curricular implementation limits the ability to assess long-term impact. Future efforts should include structured evaluation and longitudinal tracking. Expanding the model beyond CCSGs to lectures or assessments could also enhance ASA integration and impact.

ABSTRACT #46

A CLERKSHIP SIMULATED WORKSHOP: UNDERSTANDING DISABILITY AND ADAPTIVE SUCCESS OF PATIENTS AND PHYSICIAN COLLEAGUES IN MEDICINE

Andrea Lendaris, Matthew Swan, Jared Kutzin, Christine Low, Leona Hess

PURPOSE AND GOALS: Provide a curriculum for medical students that informs the adaptive successes of people with disabilities – patients and colleagues alike.

Physicians have been ill equipped with the knowledge, communication and clinical skills to meet the needs of persons with disabilities (PWD), which contributes to healthcare disparities for this population and barriers such as bias, stigma, and ableism. Further, while the number of PWD working as physicians is unknown, the medical profession has lagged behind the social progress in affording physicians with disabilities an inclusive, supportive physical and emotional environment throughout their training and careers. Historically, disability "simulation" has been criticized as evoking negative emotions and reinforcing ableist attitudes. We designed a novel curriculum for medical students that builds insight through observation and discussion, and through a disability immersive experience focused on successful adaptive techniques, communication, and team building.

METHODS: Medical students are introduced to the intent and goals of the disability workshop through an email from the clerkship directors. Medical students complete asynchronous preparatory work to gain a background on the topic of disability in medicine: i) articles on the social and medical model of disability, ii) video interviews of practicing physicians with disability, and iii) observations in the clinical environment which are posted anonymously to the Padlet platform. On the day of the workshop, students participate in two team-based sensory/motor simulations, which together with the preparatory work, informs group discussion.

EVALUATION PLAN: Students complete a pre- and post survey on their knowledge base and attitudes regarding people with disabilities.

SUMMARY OF RESULTS: Prior to the curriculum, 58% of students expressed comfort speaking with patients about disabilities, while 96% of students expressed comfort with these issues following the module. Similarly, students expressed increased comfort discussing accommodations and adaptive strategies with patients following the module (65% prior or the module, 96% following the module). While students almost universally expressed acceptance of doctors with disabilities prior to the module, they developed increased understanding of how to support colleagues with disabilities following the module, with 33% expressing comfort prior to the module, and 96% expressing comfort after the module.

REFLECTIVE CRITIQUE: Creating a disability focused curriculum in neurology clerkships is feasible and can achieve attitudinal and behavioral change. This approach serves to benefit not only PWD who are patients by fostering a disability-competent workforce, but also promotes a more inclusive professional community for physicians with disabilities. This curriculum can be generalized to other areas of medical education including graduate medical education, faculty development, and other allied professions, which would further its impact.

ABSTRACT #47

ENHANCING MEDICAL STUDENT COMPETENCY IN BEDSIDE DEVICES: A STRUCTURED CURRICULUM FOR LINES, TUBES, TELEMETRY, AND VENTILATORS

Pouya Arefi, Benjamin Finard, Rita Malley, Megan D'Andrea, Sabrina Khan, Rex Hermansen, Eve Merrill

PURPOSE AND GOALS: We designed a new medical education curriculum to help medical students recognize common bedside instruments and devices such intravenous lines, enteral feeding devices, telemetry and ventilators, as well as interpret and incorporate these devices into patient care plans.

METHODS: This curriculum was implemented at Mount Sinai Hospital and involved Internal Medicine residents as session leaders with third year medical students as participants. It is delivered every 6 weeks to students who are beginning their inpatient medicine clerkship.

The curriculum covered four major bedside skills/devices, including intravenous lines, enteral feeding devices (nasogastric tubes and percutaneous endoscopic gastrostomy tubes), telemetry, and ventilators. Discussion of each bedside device involves an overview of its purpose, methods to interpret and assess functionality at the bedside, actionable steps for medical students at the bedside, and strategies for incorporating these tools into care plans during rounds.

The initial phase involves classroom-based instruction on intravenous lines and enteral feeding devices. This includes hands-on access to supplies, visual aids, brief handouts and clinical scenarios. Students learn the specific applications of various lines and tubes, methods to assess proper placement and function, and strategies to integrate this knowledge into patient care plans. The next phase focuses on bedside teaching with consented patients, emphasizing telemetry and ventilators. This supervised hands-on approach will help students identify and interpret essential data commonly reported during medical rounds

EVALUATION PLAN: We are using the Kirkpatrick model to evaluate student satisfaction, learning, and behavioral impact of the curriculum. We initially evaluated student satisfaction with an anonymous feedback form sent to 60 participants. The next step in evaluation will implement a pre and post session survey to evaluate knowledge acquisition and the practical impact of the curriculum on clinical performance.

SUMMARY OF RESULTS: Among 20 respondents to the feedback form, 75% rated the session as very or highly relevant, and 80% planned to apply the skills during rotations. Additionally, over 70% found the session to be very or highly educational. Students also provided constructive feedback, including the use of PowerPoint slides and pocket guides for quick reference. Over half of respondents also suggested transitioning to a hybrid classroom-bedside teaching model.

REFLECTIVE CRITIQUE: The clinical years of medical school are pivotal for bridging classroom knowledge with direct patient care. However, undergraduate medical education may lack sufficient practical training on bedside devices such as lines, tubes, ventilators and telemetry. This can result in knowledge gaps and reduced confidence in utilizing these tools effectively. This curriculum helps address this gap by providing students with practical skills to enhance their clinical competency and quality of care delivered.

ABSTRACT #48

PILOT OF A BI-INSTITUTIONAL EXTRACURRICULAR INTRODUCTION TO SURGICAL SUBSPECIALTIES COURSE FOR PRECLINICAL MEDICAL STUDENTS

William Steidl, Earnest Chen, Neeti Parikh, Nisha Chadha

PURPOSE AND GOALS: Clinical experiences in surgical subspecialties are not part of the core curriculum at many medical schools, and exposure is limited in the preclinical phase. As successful surgical residency applicants often need to commit early in medical school, there is an unmet need to provide early preclinical surgical specialty exposure. Accordingly, a pilot elective course was designed via collaboration between Mount Sinai (ISMMS) and the University of California, San Francisco School of Medicine (UCSF) to address this need and to study course impact on student career interests.

METHODS: A 6-week elective course was designed to introduce preclinical medical students at ISMMS and UCSF to surgical subspecialties. Special focus was placed on ophthalmology, plastics, orthopedics, neurosurgery, otolaryngology, and urology. Faculties from both ISMMS and UCSF were invited to introduce and discuss their practice experience.

EVALUATION PLAN: Anonymous, optional pre- and post-surveys assessing specialty familiarity and career interests were administered. Survey results were analyzed using Mann-Whitney U Tests with FDR correction.

SUMMARY OF RESULTS: On the pre-survey, the most popular specialty interests included orthopedic surgery (41.2%), general surgery (29.4%), and otolaryngology (ENT) (23.5%), which changed to ENT (36.8%), Plastic Surgery (31.6%), and General Surgery (31.6%) on the post-survey. Over the course, on a scale from 1-5, student familiarity with ophthalmology increased from 2.14 to 3.16 ($p<0.001$); urology 1.33 to 2.79 ($p=0.002$); orthopedics 2.80 to 3.74 ($p<0.001$); neurosurgery 2.18 to 3.11 ($p=0.003$); ENT 1.75 to 3.05 ($p<0.001$); and plastics 1.96 to 3.05 ($p<0.001$). 52% reported exploring research, 89.5% pursued shadowing opportunities, and 68.4% sought mentorship/career advising after the course. 78.9% of students agreed/strongly agreed that the course was useful. All participants indicated they would recommend this course to other students and that it should be offered again.

REFLECTIVE CRITIQUE: This surgical subspecialty elective course offered students a broader exposure to surgical fields and provided networking opportunities beyond one's institution. Notably, this course facilitated early career exploration, allowing students to explore a new field should their interest have changed. This cross-institutional study expands upon prior work from similar studies in its focus on early, broad exposure to multiple surgical subspecialties, its emphasis on interactive case-based presentations, and its participatory question-answer forums. As some surgical specialties are highly competitive and require years of preparation to create a competitive residency application, educational opportunities focused on specialty exposure early in medical school could significantly impact the career trajectories of many future physicians by offering them both insight and time required to prepare for these career paths.

ABSTRACT #49

CRAFTING A UNIQUE MEDICAL STUDENT WORKSHOP TO PROVIDE EARLY EXPOSURE TO POTENTIAL CAREERS IN GASTROENTEROLOGY/HEPATOLOGY

Smruti Rath, Bhavana B. Rao

PURPOSE AND GOALS: Medical students have limited knowledge of the subspecialties and procedural components within Gastroenterology (GI)/Hepatology (Hep). The aim of this workshop was to provide examples of clinical applications of their basic science learning in GI/Hep, expose them to various sub-specialties within GI/Hep, and provide them a perspective on careers in the field. The goal for this experience was to not only reinforce their lecture- based learning, but also provide a perspective on career pathways and networking opportunities.

METHODS: We conceptualized and organized the workshop in March 2024. The first half consisted of a panel discussion involving 7 eminent institutional GI/Hep faculty. The second part offered hands-on stations involving commonly performed GI/Hep procedures. These included endoscopy, paracentesis, capsule endoscope, Inflammatory Bowel Disease (IBD) therapies, and esophageal manometry catheter with readings.

EVALUATION PLAN: A pre- and post- survey design was implemented to assess the workshop's impact on student understanding of and interest in GI. Both surveys were reviewed and edited by GI specialists with backgrounds in medical education. Answer choices included multiple choice, 5-point Likert scales, and free response. Students were provided with the pre-survey prior to the workshop via email and provided the post-survey via QR code at the end of the session and email. Results were analyzed both quantitatively and qualitatively. Responses on a 5-point Likert scale were analyzed as ordinal data using the Mann Whitney U test.

SUMMARY OF RESULTS: Approximately 600 students were emailed, with 46 expressing interest (83% pre-clinical) and 30 students attending the workshop. Fifteen (50%, 80% being pre-clinical) and fourteen (47%) students completed the pre- and post-survey, respectively. Lack of prior exposure to GI/Hep outside the classroom was noted by 60% of respondents and 75% stated interest in having a procedural component to their career. Participants were asked to rank their familiarity with different domains within GI/Hep with overall improvement in mean familiarity noted after the event (Table 1). Student comments were overwhelmingly positive, and 93% of the students reported that they were extremely satisfied with all aspects of the workshop.

REFLECTIVE CRITIQUE: This workshop achieved the aims of introducing medical students to career paths in GI/Hep and demonstrating applications of their pre-clinical lectures. It incorporated aspects of mentorship by introducing students to internal medicine residents, GI fellows, and GI/Hep specialists who provided them with their own perspectives at various points in the training pathway. This workshop also incorporated simulation-based learning to teach students about clinical applications of procedures in GI/Hep. These types of sessions should be introduced at the early medical school level to help expose students to different specialties and aid in career planning.

ABSTRACT #50

BEYOND TUITION: THE HIDDEN COSTS OF STUDYING MEDICINE

Madeline Penn, Lily Cohen, Rutvij Merchant, Trevor Pour

PURPOSE AND GOALS: Medical school tuition has soared to a median cost of $62,000 annually with some medical schools reporting annual tuition of > $100,000. Median medical school debt has reached $200,000, with a quarter of students reporting debts of $200,000–$300,000 and 13% reporting debts of $300,000-$600,000. While tuition costs are well-documented, there is limited knowledge of the additional expenses students face when preparing for board exams. These costs are also often not included in financial aid and may add to an already substantial debt burden, creating a barrier to entry for students with limited financial means. This study seeks to understand the often- overlooked financial burden of studying medicine beyond classroom tuition.

METHODS: We utilized a nationwide voluntary electronic survey that was sent to medical students from 100 different medical schools (MDs and DOs). Survey items included stage in medical school, estimations of money spent on studying resources (e.g., UWORLD), estimations of money spent on fees for licensing exams, such as US Medical Licensing Exams (USMLE), study resources used, and study resources paid for by the respondent vs. their academic institution. Respondents were informed that their responses would remain anonymous and would be used solely for the purpose of this research.

EVALUATION PLAN: N/A

SUMMARY OF RESULTS: 147 medical students from 44 medical schools across 16 states responded (8.3% response rate). Of respondents, 13% identified as first year medical students (MS1), 22% MS2, 16% MS3, 42% MS4, and 20% were in a research year or in PhD years of an MD/PhD. Students on average reported spending $2,771 (R = 800 - 7000; SD = 1,427) on study resources and examination registration fees. On average, students reported spending $1,294 (R = 100 - 4,000; SD = 923) on study resources outside of tuition. By stage of schooling, on average MS1s reported spending $600 on external study materials, MS2s reported $1,275, MS3s reported $1550, research year/PhD students reported $1,850, and MS4s reported $1,311. Students reported they spent on average $1,477 (R = 100 - 3000; SD = 853) on exam fees for tests required for medical school graduation.

REFLECTIVE CRITIQUE: An average cost of $2,771 for additional study resources and exam fees represents a financial strain, especially for those from economically disadvantaged backgrounds. The reliance on expensive external resources undermines collective efforts to diversify the medical profession and exacerbates educational inequity.

Students who cannot afford these resources may have challenges preparing for and excelling on standardized exams, limiting their career opportunities in medicine and reinforcing existing disparities. An important limitation of this analysis is that it focuses on study resources and exam fees and does not address other non-tuition costs. These include away rotation or visiting student fees/housing/transportation, conference attendance / research / extracurricular costs, residency application fees, and medical equipment costs.

ABSTRACT #51

EVALUATING A DANCE AND MEDICINE ELECTIVE COURSE IN MEDICAL SCHOOL

Camila Vicioso, Noy Alon, Michelle Adler, Vasundhara Singh, Beverly Forsyth

PURPOSE AND GOALS: This project introduced the first dance-related elective course at Mount Sinai. The course aims to integrate dance knowledge into medical education, emphasizing its potential to enhance patient care and well-being while developing qualities such as empathy, self-awareness, communication and mindfulness in future physicians.

The course explores how dance can benefit various patient populations (e.g., those with Autism Spectrum Disorder, aging populations, Parkinson's Disease) and aims to assess whether incorporating dance into medical training fosters greater understanding and perceived value in its role in patient care.

METHODS: The course consisted of 6 weeks of lectures, including topics on Dance in Pediatric Populations, Dance and Patient Interventions, Dance in Aging Populations, Anatomical Analysis of Dance, Dance Research on Mental Health and Dance-Related Injuries. The course content was curated by three medical students. Invited guest lecturers (physicians and dance healthcare program founders) led sessions. Participants included medical students, MD/PhD students, premedical students and faculty from Mount Sinai, Columbia and Cornell. An IRB-approved pre-and post- class survey were administered via REDCap to assess participants' attitudes, knowledge and interest in the role of dance in medical education and patient care. The course aimed to provide a framework for understanding how dance can be utilized in clinical settings to improve patient outcomes and physician development.

EVALUATION PLAN: Surveys collected both pre- and post-course quantitative and qualitative data on participants' knowledge, attitudes, and experiences related to dance and medicine. Pre-surveys assessed participants' familiarity with dance interventions in patient care, their motivations for taking the course and their baseline understanding of dance's potential benefits for patients. Post-surveys evaluated shifts in perceptions and knowledge after completing the course.

SUMMARY OF RESULTS: A total of 58 participants enrolled in the course, with 31 completing the pre-survey and 18 completing the post-survey. Pre-survey results indicated that many participants had a background in dance (24/31) and/or the arts (11/31). Post-survey results revealed shifts in attitudes: participants increased their familiarity with dance's role in patient care and strongly supported integrating dance therapy into clinical practice. 83% of participants reported that they would recommend dance to patients. Participants also expressed a strong preference for hands-on workshops and found the course valuable in enhancing both their own well-being and understanding of patient care.

REFLECTIVE CRITIQUE: The course successfully highlighted the intersection of dance and medicine, sparking interest in integrating arts-based education into medical training. Post-course feedback showed increased knowledge and enthusiasm for utilizing dance in patient care. Further studies will aim to include more participants and refine the course content based on feedback.

ABSTRACT #52

EDUCATIONAL IMPACTS AND IMPLICIT BIAS ASSOCIATED WITH MEDICAL STUDENT INTERPRETING

Camila Vicioso, Camilo Hernandez Joya, Aaron LeVan,
Mackenzie Mitchell, Jeanette Rios, Zachary Gallate, Anjali Gupta

PURPOSE AND GOALS: The purpose of this study is to explore the experiences and implicit biases associated with medical student interpreting in teaching hospitals, specifically within student-run free clinics (SRFCs). We aim to examine the educational and professional challenges LatinX medical students face when asked to interpret for Spanish-speaking patients and assess the impact of this practice on both the students' learning and patient care.

METHODS: An online survey was developed to gather anonymous reflections from medical students at the Icahn School of Medicine at Mount Sinai as well as Mount Sinai's SRFC, the East Harlem Health Outreach Partnership (EHHOP). The survey includes questions related to students' identity, language proficiency, and experiences with medical interpreting in clinical environments. The survey also explores the perceived roles, challenges, and biases encountered by students in their work as interpreters.

EVALUATION PLAN: The evaluation will focus on both qualitative and quantitative measures to assess the impact of medical student interpreting on student learning, feelings and clinical performance. We will analyze patterns in student responses to identify common feelings of bias, challenges faced in the interpreting role, and perceived barriers to effective communication in patient care. The evaluation will also include feedback on how medical schools can better support LatinX students in interpreting and clinical roles. Data will be reviewed to propose actionable interventions aimed at reducing implicit bias and improving the student experience to inform broader educational practices.

SUMMARY OF RESULTS: The study has received Institutional Review Board (IRB) approval and data collection is expected to be completed in February 2025. Preliminary results have revealed key themes regarding feelings of being overburdened by interpreting tasks and the pressure placed on LatinX students due to assumptions about their language skills. Many students also reported a sense of exclusion from the larger clinical team, which could affect their professional development and educational experience. These findings suggest that implicit bias and role assumptions may limit the effectiveness of the educational environment for these students.

REFLECTIVE CRITIQUE: This study is designed to address a gap in understanding the educational impact of implicit bias on LatinX students in healthcare settings. The main limitation is the study's current scope, which focuses on a single medical school and SRFC. Future work will involve expanding the survey to additional SRFCs and analyzing how these biases manifest in different clinical settings. Despite this limitation, the findings have the potential to spark meaningful changes in educational practices by raising awareness about implicit bias in medical student interpreting and promoting strategies to create a more inclusive and supportive learning environment.

Professional Development

POSTERS 53-54

ABSTRACT #53

EVALUATION OF ONLINE CLINICAL PALLIATIVE CARE TRAINING: COMMUNICATION AND HEALTH EQUITY CURRICULUM (2022–2024)

Brittany Chambers, Rima Itani Al-Nimr, Andy Esch

PURPOSE AND GOALS: In the United States (U.S.), there is a significant gap in clinical education regarding the communication skills required to provide equitable care for individuals with serious illness (cancer, sickle cell, heart failure).

Research shows that high-quality conversations between providers and patients, are linked with improved outcomes, better quality of life, higher patient satisfaction, reduced hospital readmissions and more equitable care.

The goal of this project is to examine how the Center to Advance Palliative Care (CAPC) online clinical communication training curriculum that highlight content on health equity and implicit bias can significantly impact healthcare providers knowledge and attitude improvements post-training.

METHODS: Healthcare providers (n = 1,240) who care for patients diagnosed with serious illness at health care organizations across the U.S. completed the five-course communication unit and subsequently three-month follow up survey to describe the impact of the training on their care delivery.

EVALUATION PLAN: Learners complete two evaluations: at the end of each course and a follow up survey three months post-training to describe the impact the training had on their care delivery approach.

SUMMARY OF RESULTS: From January 2022 - December 2024, 1,240 clinicians working in health organizations received CAPC Designation in Communication and completed the follow-up survey.

96% of learners reported confidence in their ability to identify their patient values after the CAPC Communication Designation compared to 74% feeling confident prior to training.

90% of learners reported making practice improvements due to CAPC's Communication Designation. Registered nurses represent most learners, followed by Advanced Practice Providers (APPs).

REFLECTIVE CRITIQUE: The CAPC clinical curriculum is a growing valued approach to educating healthcare professionals in clinical communication skills - including health equity and implicit bias content-essential for high quality care for individuals with serious illness.

Evidence supports that this type of training approach can significantly increase learners reported confidence in their ability to identify their patient values after the CAPC Communication Designation which can help reduce health inequities.

Additional research is needed to determine how to continue to scale this type of training and better understand providers' ongoing ability to actively address known disparities in care.

ABSTRACT #54

ESTABLISHING A MULTI-DISCIPLINARY RESEARCH PROGRAM AT A STUDENT-RUN FREE MENTAL HEALTH CLINIC

Anabelle Elikan, Christian Porras, Taelor Matos, Craig Katz

PURPOSE AND GOALS: The Mental Health Clinic (MHC), a service of the East Harlem Health Outreach Partnership (EHHOP), provides mental health care to community members ineligible to receive health insurance. This population faces compounding psychosocial factors that can exacerbate mental health challenges and is largely excluded from research. In response, we expanded the MHC research team: a diverse, multi-disciplinary team whose mission is to integrate high-quality research into the clinic's operations while providing extracurricular training for the students involved. One flagship study evaluates telepsychiatry use outcomes throughout the COVID pandemic versus in- person therapy. Here we present the MHC research team as an educational model for developing a sustainable student-run research program. We describe the team organization, current projects and share our approach for ensuring longevity and robust training in clinical research.

METHODS: Students were recruited from the Icahn School of Medicine at Mount Sinai's Graduate School of Biomedical Sciences (GSBS) and Medical School to form the MHC research team. The team developed a standard operating procedure consisting of bi-weekly meetings, training in clinical research regulations, journal club, a communication hub and close contact with MHC clinicians. The telepsychiatry study, designed by the MHC research team and approved by the Mount Sinai IRB (STUDY-24-00195), leverages the team's diverse expertise. A retrospective chart review was conducted using records (n=64) from March 2020-2024 to assess mental health outcomes over time.

Participants were also interviewed (n=14) to evaluate qualitative experiences with MHC.

EVALUATION PLAN: Demographic information for the MHC research team is presented. These include the program of study, year of study, and role within the team. Student roles are categorized into: (1) Data Managers, (2) Research Analysts, (3) Clinical Liaisons, (4) Training Coordinators. Here we describe our research team's operational framework and how we leveraged it to design, obtain IRB approval for, implement and complete the telepsychiatry study. Our framework creates a stable foundation for student research.

SUMMARY OF RESULTS: A total of eleven students were recruited to establish an MHC research program. The students ranged from years 1-5 in their respective programs. Students reported being part of the MD-PhD (2), the MD (2), GSBS, including the AIET Concentration and Post-Baccalaureate Research Education Program (PREP) (7). PREP at Mount Sinai is an NIH-funded pathway program designed to prepare underrepresented students for doctoral training. For the telepsychiatry study, PHQ-9 and GAD-7 scores demonstrate comparable outcomes between care delivery modalities, despite participant preference towards in-person therapy.

REFLECTIVE CRITIQUE: We present a model for student research training in a free mental health clinic. With a diverse team, effective research on the use of telepsychiatry was performed with the ultimate goal of improving quality of care.

Quality Improvement

POSTERS 55-61

ABSTRACT #55

BUNDLING VARIATIONS IN CRANIOSYNOSTOSIS BILLING REVEAL THE NEED FOR ENHANCED BILLING EDUCATIONAL INTERVENTIONS

Allison E. Choe, Daniel Y. Kwon, Keisha E. Montalmant, Jeffrey Russell, Jacquelyn Roth, Bernice Yu, Peter Taub

PURPOSE AND GOALS: Accurate reimbursement under the U.S. fee-for-service model necessitates precise coding for healthcare procedures. Inadequate educational resources have contributed to unclear definitions of current procedure terminology (CPT) which may lead to inconsistencies in billing routines for procedures such as craniotomy and craniectomy in patients with craniosynostosis. As such, the present study aims to analyze the impact of unbundling and bundling trends in craniosynostosis treatment and outcomes to assess the need for higher quality educational interventions in billing practices.

METHODS: The Pediatric National Surgical Quality Improvement Program (NSQIP) database was queried to identify cases recorded between 2013 to 2020. Bundled CPT code 21175 and the individual craniosynostosis-specific CPT codes 61550, 61552, 61556, 61557, 61558, and 61559 were utilized. The unbundled cohort was categorized by any number of the individual craniosynostosis-specific CPT codes and the bundled cohort by CPT code 21175. Length of stay (LOS), operative time, and surgical specialty were analyzed.

EVALUATION PLAN: A total of 8,817 patients were identified of which 5.9% patients were bundled, and 94.1% were unbundled. Operative time was significantly shorter in the unbundled cohort (177.6 ± 108.1 min) compared to the bundled cohort (249.1 ± 89.0 min, $p<0.001$). LOS was shorter in the unbundled group (3.05 ± 9.0 days) compared to the bundled group (3.60 ± 7.9 days, $p = 0.18$). Plastic surgeons were significantly more likely to bundle (11.6%) compared to neurosurgeons (1.3%, $p<0.001$).

SUMMARY OF RESULTS: The majority of craniosynostosis treatment procedures were unbundled, which was associated with significantly shorter operative times compared to bundled cases. LOS was also shorter in the unbundled group, and plastic surgeons were significantly more likely to bundle procedures than other specialties. These findings suggest a need for a critical review of current coding guidelines and educational interventions to eliminate ambiguity in the treatment of craniosynostosis.

REFLECTIVE CRITIQUE: This study underscores the need for improved educational interventions to standardize billing practices in craniosynostosis treatment. While it is important to note that some coding trends follow procedure-specific patterns, such as CPT code 21175 rarely being used in endoscopic procedures due to lack of forehead involvement, the significant differences in operative time and bundling trends across surgical specialties highlight the variability that may arise from unclear definitions of CPT codes. Addressing these discrepancies through targeted educational initiatives could enhance coding accuracy and ensure equitable financial outcomes for healthcare providers and patients.

ABSTRACT #56

A POCKET OF UNTAPPED POTENTIAL: SHIFTING PARADIGMS IN PROCEDURAL COMPETENCY

Joseph Abraham, Vasundhara Singh, Brian Markoff, Lance Maresky

PURPOSE AND GOALS: To leverage secure chat technology to connect paracentesis-certified Hospital Medicine faculty and IM (Internal Medicine) residents with IM residents eager to gain proficiency and eventual certification. The initiative aims to streamline operations, enhance procedural safety, and ensure compliance with guidelines while propagating procedural competency within the Internal Medicine Residency Program.

METHODS: Secure Chat Integration: An Epic secure chat was created to connect certified proceduralists and learners. This platform enabled quick access to expertise, ensuring certified personnel were available to supervise procedures, reducing delays and enhancing patient safety.

Certification Embedded in New Innovations: A structured certification program was established, focusing on training residents in paracentesis, with an aim to increase the number of certified practitioners.
Rigorous Training: A partnership between the IM residency and the Department of Critical Care has yielded proprietary online modules which provide detailed insight into the procedure, ensuring consistent procedural standards, and a high bar is set for the minimum requirement of procedures completed before certification.
Compliance and Guidelines: Clear protocols were developed to ensure compliance with medical standards and billing procedures, emphasizing the importance of consent and proper documentation.

EVALUATION PLAN: Conduct a comprehensive survey targeting both residents and Hospital Medicine faculty to assess perceived ease and efficiency in performing and obtaining paracentesis procedures for their patients. The survey will include quantitative metrics and qualitative feedback to gauge confidence, procedural challenges, and overall satisfaction with the training and resources provided.
Comparative Certification and Logging Rates: Analyze and compare the rates of paracentesis procedure logging and % of residents certified in paracentesis across three IM programs: Mount Sinai Morningside-West (MSMW), with Mount Sinai Hospital (MSH) and Elmhurst Hospital Center acting as controls.

SUMMARY OF RESULTS: Preliminary results have shown an average of ~2 chats started per week resulting in successful completion of the requisite paracentesis, with an average response time by supervising providers of under a minute. 70+ residents signed up to participate in the first week.

REFLECTIVE CRITIQUE: With increasing subspecialization in Internal Medicine, hospitalists' roles have evolved, reducing certification rates in procedures like paracentesis. This gap affects procedural safety, operational efficiency, and access to the procedure. Our approach has tentatively shown great promise in bridging this gap. Some limitations to our method include availability of supervising physicians, awareness of the project, and continuity of the program. The program's success, however, should inherently mitigate these and other issues that may arise by creating more supervisors, increase systemwide investment in the program, and endowing it with longevity.

ABSTRACT #57

A MULTIDISCIPLINARY APPROACH TO REDUCING HOSPITAL ACQUIRED PRESSURE INJURIES IN INTENSIVE CARE UNITS

Aesha Patel, Jorge Sinclair De Frias, James Salonia, Amanda Zotte, Sarah Costigan

PURPOSE AND GOALS: Hospital-acquired pressure injury (HAPI) is localized skin and soft tissue damage resulting from prolonged pressure, exacerbated by friction/shearing forces during inpatient care. Risk factors include immobility, moisture exposure and poor perfusion, which are prevalent in critically ill patients. Designated as 'never events' by the Centers for Medicare and Medicaid Services, HAPIs are preventable medical errors linked to increased length of stay (LOS), infection, readmissions, high costs, and mortality. We established a multidisciplinary pressure injury prevention (PIP) team to reduce preventable HAPIs through education on screening, timely skin assessments, and implementation of preventative/treatment measures

METHODS: This initiative was implemented in the intensive care unit (ICU) at Mount Sinai West Hospital to prevent/manage HAPIs through enhanced awareness, education, and interdisciplinary collaboration. This included bi- weekly wound care team rounds comprising wound care specialists, attending physicians, nurse managers, respiratory therapists, nurses, and resident physicians. Rounds served as an educational platform for training on the Braden Scale for risk assessment, reviewing relevant literature, and performing clinical evaluations. Team members received instruction on documentation and grading of pressure injuries, while nursing staff engaged in specialized training focused on wound care. Select "Nursing Skin Champions" received home-grown education and formal Skin Savers Course training. To standardize care, we selected appropriate materials for pressure dressings and utilized tools to minimize device-related pressure injuries and facilitate timely interventions.

EVALUATION PLAN: Efficacy was evaluated by routine documentation and grading of pressure injuries by wound care specialists.

SUMMARY OF RESULTS: The PIP team was implemented on the 8AE unit from 2022-2024, and on the 8AW unit from 2023-2024. Pre-implementation data were collected from 2022 for 8AE and 2023 for 8AW, with the objective of achieving a 25% reduction in HAPIs. On 8AE, HAPIs decreased from 19 (5.4/1,000 patient days) in 2022 to 7 (2.32/1,000 patient days) post-implementation, reflecting a 57.04% reduction. By 2024 year-to-date (YTD), 8AE reported 7 HAPIs (2.8/1,000 patient days), a 48.15% reduction from pre-implementation. For 8AW, pre- implementation data showed 9 HAPIs (4.6/1,000 patient days) in 2023, decreasing to 4 (1.99 per 1,000 patient days) in 2024 YTD, indicating a 56.74% reduction.

REFLECTIVE CRITIQUE: Establishing the PIP team in ICUs has led to notable reductions in HAPIs. This initiative facilitates prevention, timely screening, and treatment to avoid 'never events.' Future efforts will focus on resident education through didactics, and early risk stratification using electronic health records to identify comorbid conditions predictive of HAPIs. This quality improvement initiative aims to reduce LOS, infection rates, and readmissions, enhancing patient outcomes and decreasing healthcare costs.

ABSTRACT #58

INCREASING INSTITUTIONAL QUALITY IMPROVEMENT CAPACITY: TRAINING FACULTY AND FELLOWS TO LEAD QI INITIATIVES

Kristi Nguyen, Stephanie Chow, Helen Fernandez, Brijen Shah, Christine Chang

PURPOSE AND GOALS: Programs with limited faculty QI expertise struggle to meet ACGME mandate that learners participate in quality improvement (QI)/patient safety (PS) initiatives. Our fellows participate in a 9-month project- based QI curriculum coached by faculty. Survey of faculty coaches revealed 43% never completed a formal QI curriculum, only 43% felt 'very comfortable' being a QI mentor, and 86% would welcome QI faculty development (FD). Feedback from 1st yr fellows requested stronger faculty-facilitation. Our project aims to improve QI capacity by training faculty & fellows as QI coaches.

METHODS: All QI coaches participated in a web-based FD course to learn QI principles and a Train-the-Trainer Model on facilitating QI team projects. A mid-year "check-in" with faculty explored team project challenges.

EVALUATION PLAN: Faculty and fellows completed a prospective pre-post survey with demographics; 5-item questionnaire on comfort with QI concepts on a Likert Scale (5= Very Comfortable, 1= Very Uncomfortable); 3 cases from the Quality Improvement Knowledge Application Tool (QIKAT); and an open-ended course evaluation.

SUMMARY OF RESULTS: 92 coaches (54 faculty + 38 2nd yr fellows) mentored 105 1st yr fellows on 31 QI initiatives from 2019-2024. 56% were 1st time coaches (18 faculty + 27 fellows). 45% (24) of faculty coaches completed fellowship <5 years ago while 43% (23) completed fellowship > 10 years ago. 25% (13) of faculty coaches had no prior QI training. 87% (80) of all coaches completed both pre- and post- surveys. Post curriculum, all coaches demonstrated improved comfort in utilizing the 5 key QI concepts ($p<0.05$), improved QI knowledge (PRE 22; POST 23.9; $p<0.05$); and improved comfort coaching a QI team (PRE 3.6; POST 3.9, $p=0.02$). 1st yr fellows (101) mentored by these QI coaches demonstrated improved comfort with utilizing all 5 QI concepts ($p<0.001$) and improved QI knowledge (QIKAT PRE 20.4, POST 22.9; $p<0.002$). 74% of teams (23/31) submitted 36 abstract submissions with 27 regional/national presentations (75% acceptance).

REFLECTIVE CRITIQUE: Use of asynchronous web-based training with the Train-the-Trainer Model to coach faculty and 2nd year fellows on how to lead QI initiatives is an effective method to increase institutional QI capacity and meet ACGME QI mandates.

ABSTRACT #59

BRIEF ALCOHOL ADVICE IN THE INPATIENT AND OUTPATIENT SETTING: A MED ED INITIATIVE

Kristine Lou Gargaritano, Peter Barelli

PURPOSE AND GOALS: Screening, brief intervention and referral to treatment (SBIRTs) are a standardized comprehensive approach towards promoting healthy lifestyle behaviors in patients. This approach has been described in the literature on brief alcohol advice, notably in the outpatient clinical environment. Physicians often face barriers when conducting SBIRTs for alcohol cessation including: lack of confidence, lack of training and personal discomfort. A 2024 needs assessment suggests that these barriers also exist within the Mount Sinai Morningside/West Internal Medicine program. Through this educational initiative, we aim to increase both knowledge and confidence in conducting brief alcohol advice with the goal of helping residents perform effective SBIRTs within the inpatient and outpatient setting.

METHODS: After the initial needs assessment was performed in March 2024, a combined didactic and case-based presentation was held during Resident Academic Half Day (AHD) in April 2024. This lecture focused on the following topics: DSM-V diagnostic criteria of alcohol use disorder (AUD), medical complications, SBIRT components, transtheoretical model and discussion of FDA-approved medications for AUD. Following this initial intervention, we aim to develop Resident Arts and Practice sessions that focus on practical application of motivational interviewing using roleplay scenarios with constructive feedback provided. Learners will also be provided a 1-page brochure highlighting outpatient resources and pharmacological information.

EVALUATION PLAN: Evaluation of resident knowledge and confidence regarding brief alcohol advice was performed via anonymous surveys which were provided prior to the 1st AHD session as well as immediately afterwards. 17 responses were collected pre-intervention and 16 responses were collected post-intervention. During the upcoming Residence Arts and Practice sessions (to be held in February and March 2025), another set of detailed surveys will be provided with feedback portions.

SUMMARY OF RESULTS: The results of the 1st AHD educational intervention were as follows: 52% (pre-intervention) vs 75% (post-intervention) of learners correctly identified the number of criteria needed for formal diagnosis of AUD. 76% of learners (pre-intervention) were able to correctly characterize severity of AUD and this improved to 100% after the presentation. Learners' confidence in providing brief alcohol advice, prescribing medications for AUD, familiarity with SBIRT, belief in SBIRT long-term effectiveness and comfortability in referring patients to outpatient resources also showed an upward trend following the educational session.

REFLECTIVE CRITIQUE: The preliminary results of this project demonstrate the need for further quality improvement in developing this curriculum to improve residents' knowledge and confidence in counselling patients on alcohol use. We aim to continuously develop and improve these educational sessions by collecting more data in Spring 2025.

ABSTRACT #60

DISPARITIES IN ACCESS TO ENDOSCOPIC VS OPEN APPROACHES TO THE SURGICAL MANAGEMENT OF CRANIOSYNOSTOSIS: A CALL FOR AWARENESS

Daniel Y. Kwon, Allison E. Choe, Dillan F. Villavisanis, Olachi Oleru, Nargiz Seyidova, Peter Shamamian, Carol Wang, Alex Sarosi, Jeffrey Russell, Peter Taub

PURPOSE AND GOALS: Despite advancements in surgical interventions for craniosynostosis, significant disparities in access to specialized care persist. This study aimed to evaluate racial, socioeconomic, and institutional disparities in access to endoscopic and open surgical treatments for craniosynostosis and highlight the need to address these disparities within medical education.

METHODS: A database retrospective cohort study was conducted using the 2018-2021 National Inpatient Sample (NIS). Data were obtained for patients who fulfilled both a primary diagnosis for craniosynostosis (ICD-10: Q75.0) as well as ICD-10 PCS classification for related surgical management in the same admission.

EVALUATION PLAN: A total of 1,099 patients received surgical management for craniosynostosis after admission: 183 (16.7%) were treated with endoscopic surgery and 916 (83.3%) were treated with open surgery. Significantly more patients had private insurance in the endoscopic group (60.1%) compared to the open group (37.7%, $p<0.001$). There were significantly more White patients within the endoscopic group (67.8%) than the open group (48.6%, $p<0.001$).

Furthermore, there were significantly more patients residing within the 76th-100th percentile of median household income zip codes in the endoscopic group (37.2%) compared to the open group (24.6%, $p<0.001$). Lastly, there were significantly more patients treated at private, not for profit hospitals within the endoscopic group (93.4%) than the open group (87.9%, $p=0.029$).

SUMMARY OF RESULTS: The present study reveals notable demographic and socioeconomic disparities between patients undergoing endoscopic and open surgical treatment for craniosynostosis. These findings suggest endoscopic procedures are less accessible than open procedures, as endoscopic procedures were associated with more patients with private health insurance living in zipcodes with higher median household incomes. The association between endoscopic procedures and higher socioeconomic status may reflect systemic barriers such as cost, provider training, and institutional resource allocation.

REFLECTIVE CRITIQUE: This study highlights the need to address inequities in access to endoscopic craniosynostosis procedures, which disproportionately favor patients with private insurance and higher socioeconomic status. Increased educational efforts are essential to equip future healthcare providers with the tools to recognize and mitigate these disparities.

ABSTRACT #61

IMPROVING TRANSITIONS OF CARE FOR PALLIATIVE CARE PATIENTS: OPIOID PRESCRIBING ON HOSPITAL DISCHARGE

Kari Brown, Linda Yu, Joy Liu, Bruno Costa, Stephanie Tse, Helen Chen, Joanna Chen, Ayla Pelleg

PURPOSE AND GOALS: The peri-discharge period is a critical period of transition, particularly for patients with serious illness. One study linked running out of pain medications with avoidable ED visits in patients with advanced cancer receiving outpatient palliative care. To improve transitions of care for patients being discharged on opioids at Mount Sinai Hospital, our team surveyed palliative care and primary teams about barriers to successful opioid prescription fulfillment. The most common concern among palliative care providers (33%) was the ability of the primary team to send accurate opioid prescriptions (per palliative team recommendations) by the time of discharge. The surveyed primary teams felt that an opioid prescribing guide would assist in their daily prescribingpractice.

METHODS: Creating a fishbone diagram, we identified factors contributing to unsuccessful opioid prescription fulfillment and determined a need for improved communication between palliative and primary teams. To address this, we integrated a standardized educational checklist into the palliative consult workflow. This checklist is used once a primary team identifies a patient nearing discharge. Over an 8-week period, palliative care providers will incorporate the checklist into their consult notes during the first round of our plan-do-study-act (PDSA)cycle.

EVALUATION PLAN: The primary outcome measure will assess whether the correct opioid type and quantity were sent before the patient's follow-up appointment with the outpatient prescriber (by monitoring the New York State Prescription Monitoring Program). We will also evaluate the inclusion of appropriate ICD codes with opioid prescriptions to determine whether the checklist's educational content was effectively utilized.

SUMMARY OF RESULTS: Based on initial survey data from primary teams, we developed an educational checklist to improve opioid prescribing practice that outlines the process for obtaining adequate discharge opioid prescriptions for patients, with emphasis on appropriate ICD codes for prescriptions. The checklist includes guidance on addressing additional barriers (identified by primary teams in surveys) such as completing prior authorizations and identifying pharmacies with sufficient opioid supplies. Once process and outcome data are collected, we will complete the first PDSA cycle to evaluate the effectiveness of the intervention.

REFLECTIVE CRITIQUE: Our goal is to reduce emergency room visits and readmissions among palliative care patients by improving opioid prescribing during transitions of care. This educational intervention addresses several of the barriers reported by primary teams in the administered survey. Data from the PDSA cycle will help refine the intervention to better support discharge transitions at our institution.

Simulation

POSTERS 62-64

ABSTRACT #62

LEARNING THROUGH SIMULATION FOR PEDIATRIC RESIDENTS: A CASE OF ORBITAL CELLULITIS COMPLICATED BY CAVERNOUS SINUS THROMBOSIS

Margaret Yang, Elana Siegel, Jennifer Gillen, Jared Kutzin, Jan Fune

PURPOSE AND GOALS: While pediatric residents are often taught how to distinguish periorbital and orbital cellulitis, identifying and treating the sequelae of orbital cellulitis may not be as familiar. The goals of this simulation were to teach learners how to recognize and manage orbital cellulitis and possible complications such as sepsis and stroke. This case was designed to review sepsis guidelines and expose trainees to pediatric stroke recognition and management.

METHODS: The case was designed for pediatric residents, featuring a 10-year-old boy presenting to the emergency department with eye pain and swelling, fever, and tachycardia. After initial assessment and treatment for sepsis, the patient develops altered mental status and lateral gaze palsy that warrants timely interventions; the case evolves based on the participants' actions. The same case was implemented during four sessions with four different groups of pediatric residents in the Simulation Teaching and Research (STAR) Center. Facilitators debriefed each group using the Reflective Learning in Simulation (PEARLS) framework developed by Baja et al. (2018).

EVALUATION PLAN: We created a critical action checklist of 12 items with categorical responses of "Yes" or "No" that was then scored after each session. We looked at the number of critical actions completed by each group afterwards.

Learners also anonymously completed a post-course evaluation that used a Likert scale. We looked at the mean, median, and range of their responses.

SUMMARY OF RESULTS: A total of 22 residents completed the simulation. There were 4 groups that consisted of a mix of pediatric residents from PGY-1 to -3, and the group sizes ranged from 4 to 7 participants. Out of the 12-item critical action checklist, scores were 6 out of 12 (50%), two 8 out of 12 (67%), and 10 out of 12 (83%) with a mean of 8 out of 12 (67%). All 4 groups recognized sepsis and initiated goal-directed therapy and recognized signs of stroke. Only 1 group established roles and none of the groups requested new vital signs when the patient exhibited clinical changes. All residents completed the course evaluation. Twenty responded "strongly agree" to "the knowledge I gained from the session will be helpful to me in my practice" and to "what I learned today will help to improve patient outcomes", and 2 responded "agree" to both statements. The average overall course score was 5.7 out of 6 with a median of 6 (range of 4 to 6).

REFLECTIVE CRITIQUE: The findings demonstrate our simulation can fill a gap in the pediatric simulation curriculum. This 45-minute session can be impactful in teaching residents how to identify and treat sepsis and orbital cellulitis complications. In addition to residents feeling more knowledgeable about this topic, during the debriefing session residents shared they learned the importance of assigning roles, effective communication, and teamwork. For future iterations, we will invite learners to redo the simulation after the debrief in order to compare checklist score and assess retention of learning.

ABSTRACT #63

EXPLORING THE USE OF SAFETY-II DEBRIEFING IN PUBLICLY AVAILABLE DEBRIEFING VIDEOS

Suzanne Bentley, Alexander Meshel, Komal Bajaj

PURPOSE AND GOALS: Patient safety science and debriefing approaches tend to focus heavily on Safety-I and learning from opportunities for improvement or unfavorable performance. Consequently, rich analysis and learning from favorable performance or outcomes – Safety-II – is underrepresented or excluded entirely. The goal is to explore current use of Safety-II debriefing principles in open access healthcare debriefing videos.

METHODS: Open access videos of healthcare debriefing were sought by searching Google and YouTube via search terms and via search of major professional organization websites. Included videos were reviewed to score all utterances on 4 main points: 1) phase of debriefing; 2) utterance types 3) facilitator or a participant utterance; 4) if statement was neutral, Safety-II, or Safety-I.

EVALUATION PLAN: A review of open access debriefing videos were reviewed with a goal to highlight the missed opportunities/lack of publicly supported use of Safety-II debriefing materials. This project serves as a call to action/needs assessment for future debriefer education to incorporate Safety-II debriefing into their practice.

SUMMARY OF RESULTS: One-hundred-sixty-seven videos were identified. Seven videos met the inclusion criteria. Facilitators in total asked 24 questions and made 30 statements and participants asked 1 question and made 59 statements. Facilitators offered follow-up comments or questions to their own negatively focused statements 75% of the time, compared to follow-up utterances after 25% of their positively focused statements. Facilitators offered follow- up discussion or comment to participants' negative statements 44% of the time, compared to 5% of the time when positive focused statements were made by participants.

REFLECTIVE CRITIQUE: While there is always room for improvement and we must all strive to do the best we can, we are missing a major opportunity to build resilience by reinforcing positive performance and analyzing the reasons why things go as positively as they do, as observed in the overwhelming majority of occurrences in healthcare. Those designing such instructional videos should intentionally include debriefing of both Safety-I and Safety-II aspects of performance, as they are both important and complimentary. Future study on the impact of Safety-II debriefing should focus on context-specific promotion of quality and patient safety, as well as impact on participant wellbeing and overall safety culture. This project serves as an early needs assessment for debriefer education. From this review, curricula are being created to aide in debriefing courses, and we aim to encourage greater use of Safety-II practices in both clinical debriefing as well as publicly available debriefing training/guides.

ABSTRACT #64

UTILIZING MIXED REALITY TO TEACH ANATOMY TO RESIDENTS: A PILOT STUDY

Alexander Meshel, Garrett W. Burnett, Chang Park, David Chang, Benjamin Hyers, Daniel Katz, Adam Levine, Jeffrey Laitman, Patrick Maffucci

PURPOSE AND GOALS: Mixed Reality (MR) is a newer education modality in simulation. It allows for the learner to combine both a real and virtual space aimed allowing for increased flexibility and the ability to facilitate education offerings in different spaces, While many medical schools are no longer using human cadavers and have transitioned to virtual anatomy, very little literature has been published regarding teaching anesthesiology trainees anatomy using cadavers using MR. We aimed to create virtual prosection and a brief virtual curriculum as proof of concept to guide future mixed reality simulation curricula.

METHODS: We created three virtual prosections for anesthesiology trainees: a prosection for neuraxial anesthesia, the brachial plexus/upper extremity, and lower extremity. The prosections focused on incorporating the muscles, ligaments, and nerves that are critical for understanding the anatomy for neuraxial and regional anesthesia. Residents were guided through a 20-minute MR curriculum with an expert facilitator. Residents were able to identify landmarks and peel away layers of virtual anatomy to understand the clinical impact of procedures they encounter clinically.

EVALUATION PLAN: Residents created a survey upon completion of the course focusing the feasibility and implementation of this novel education modality. The survey focused on use of the equipment, impact on practice, and desire for future virtual elements in the anesthesiology trainee curriculum.

SUMMARY OF RESULTS: Nineteen anesthesiology residents completed the anatomy curriculum with the MR component. Fifteen participants report this session as the first time using any virtual reality headset or being a novice user of mixed reality. Ninety-five percent (n=18) rated the quality of images as a 4 or 5 on a 5-point scale and 95% agreed or strongly agreed the VR component of the course improved their understanding of regional anatomy. Seventy-eight percent (n=14) agreed or strongly agreed it would impact their clinical practice. One hundred percent (n=19) agreed or strongly agreed they would want to repeat a similar VR/AR session in 6 months and would want to incorporate more MR into the residency curriculum. Qualitative comments included “this was a fantastic experience, which helped me tremendously to get better understanding of regional anatomy” and “Great system, would be hugely beneficial for regional as well as other areas (i.e. TEE).”

REFLECTIVE CRITIQUE: This pilot demonstrates the demand within our residency for future MR curricula and serves as a pilot implementation for software aimed at improving knowledge of neuraxial and regional anesthesia. While this study relies on participant satisfaction and survey data, the major focus is on the implementation and feasibility of introducing mixed reality education at the GME level for anesthesiology trainees. This pilot serves as the first use of this technology within the department, and from this pilot, we are now conducting interventional education-based studies utilizing MR.

Thank you for attending the Twenty-second Annual Education Research Day

Institute for Medical Education at the Icahn School of Medicine at Mount Sinai

IME LEADERSHIP:

Reena Karani, MD, MHPE
Director
Institute for Medical Education

Daniel Conover
Program Manager
Institute for Medical Education

IME CONTACT INFORMATION:

E-mail: InstituteMedEd@mssm.edu

Website: Icahn.mssm.edu/IME

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