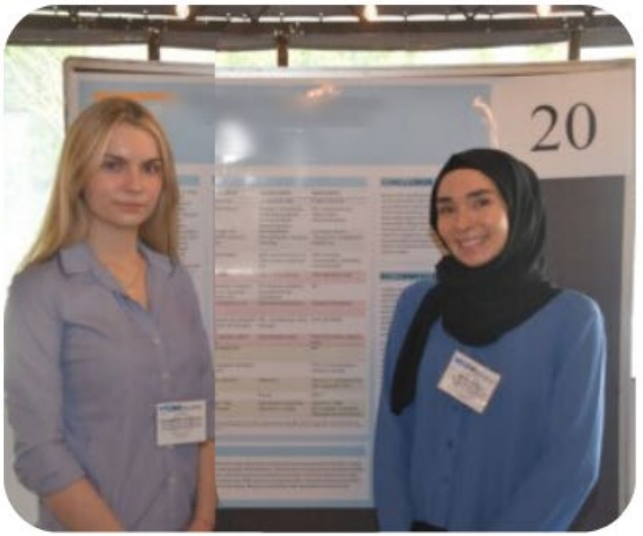
ABSTRACT BOOK

RESIDENT, FELLOW, AND MEDICAL STUDENT POSTER SYMPOSIUM



MSSNY

HOUSE OF DELEGATES
ROCHESTER, NEW YORK

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MESF
MEDICAL, EDUCATIONAL AND SCIENTIFIC FOUNDATION OF NEW YORK STATE

MSSNY Resident, Fellow and Medical Student Poster Symposium
March 27, 2026
Rochester Convention Center, Rochester, New York

JUDGES

(As of date of printing)

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Sana Bloch, MD
Sherman Dunn, MD
Lisa Eng, DO
Phillip Gioia, MD
Steven Kaner, MD
Keith A. LaScalea, MD
Toni-Ann Lewis, MD
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19th Annual MSSNY Resident/Fellow and Medical Student Poster Symposium
FRIDAY, March 27, 2026

Submission Guidelines

MSSNY Medical Student and Resident/Fellow members are invited to submit abstracts that will be considered for poster presentation. **You MUST BE a MSSNY MEMBER to participate. Please be sure to join at www.mssny.org prior to submitting your abstract.**

Please note that medical student membership requires enrollment in a LCME or COCA accredited school. However, non-LCME/COCA students doing rotations in New York hospitals may participate without membership.

Date: Friday, March 27, 2026
Time: 12:00 Noon – 3:00 pm
Location: Rochester Convention Center, 123 E Main Street, Rochester, New York

The Poster Symposium takes place during the MSSNY House of Delegates Meeting[1]

1. **SUBMISSION RULES**
   a) **You must be a MSSNY member in good standing to participate** (see non-LCME/COCA student exception above). Co-authors are not required to be MSSNY members.
   b) **Non-member first authors must apply for MSSNY membership**. Medical student membership is free. First time resident/fellow membership is free. If you are a former MSSNY resident member, you will have to rejoin and pay your current dues. Residents and students may join online at **http://mymssny.mssny.org**. **PLEASE NOTE YOU MUST JOIN MSSNY AND CREATE AN ACCOUNT BEFORE YOU WILL BE ABLE TO PAY YOUR ENTRY FEE.**
   Thanks to a grant we received from the **MEDICAL, EDUCATIONAL and SCIENTIFIC FOUNDATION OF NEW YORK** we are able to reduce our entry fee to $25. Please note this fee is non-refundable and must be paid prior to **SUBMISSION OF YOUR ABSTRACT**. This fee supports the symposium. Please click this link to submit payment: https://mymssny.mssny.org/Event.aspx?EventKey=PS2026 **Check with your Program Director to determine if they will reimburse this fee.**
   c) The DEADLNE for abstract submission is 4 pm on Tuesday, January 6, 2026.
   d) Abstracts must be scored to be considered for poster presentation. The top 50 resident/fellow and top 20 medical student scores will be invited to present posters in March.
   e) Each applicant may submit only one abstract. You can only be the lead author on one abstract.
   f) Those submitting abstracts for consideration must be the first author of the research.
   g) All submissions must be original works of individuals actively engaged in residency or fellowship training or enrolled in medical school.
   h) Posters previously entered in a MSSNY symposium cannot be resubmitted.

[1] The House of Delegates is an annual meeting during which MSSNY officers, councilors, trustees and designated delegates from county medical societies and recognized specialty societies formulate MSSNY policy and elect officers. Accepted symposium participants who wish to are invited to attend all meeting activities. A Daily Guide will be posted on the MSSNY website **www.mssny.org** as the meeting approaches.

i) Entries may have been published in abstract form elsewhere but may not be taken from previously published papers. (Authors should also be aware that acceptance at this meeting may preclude an abstract's candidacy for submission elsewhere. It is the author's responsibility to check on this.)
j) Authors of entries accepted for the symposium must be able to attend the meeting and be present to discuss their submissions.
k) All entrants will be notified via e-mail regarding acceptance or rejection of their abstracts as soon as all abstracts have been scored. **MAKE SURE TO PROVIDE A PREFERRED EMAIL ADDRESS THAT YOU LOOK AT! We will use only one email address per participant. Also, please provide the best mailing address to use for you. This should be your home address.**
l) Questions? Email Kathy Rohrer at **krohrer@mssny.org** or call 516-488-6100 x 3960.

2. **ABSTRACT CATEGORIES**
   a) **Resident/Fellows** may submit entries in one of two categories:
      1) ***Clinical Medicine*** includes basic science, quality improvement, health policy, clinical research, and medical education. **Entries in this category are highly encouraged.**
      2) ***Clinical Vignettes*** involve the presentation of one or more patient encounters that illuminate unique observations of a known disease or describe a novel disease process; use of a new procedure, treatment, or medication; medical mysteries; patient, family, and physician relationships; ethical issues. These are expected to include clinical patient information such as history, physical exam, and clinical data, as well as an analysis of how such observations might contribute to existing medical or scientific knowledge.
   b) **Medical Students** may submit abstracts of their scientific research (biochemistry/cell biology, cancer biology, clinical outcomes and healthcare improvement, immunology/infectious disease/inflammation, neurobiology/neuroscience, public health and epidemiology, radiology/imaging, surgery/biomedical engineering); clinical vignettes; or projects based in social sciences and humanities, including alternative methodologies.

3. **ABSTRACT CRITERIA – PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY**
   a) Submit abstracts as email attachments in MS WORD, 10-point Arial font, to **krohrer@mssny.org**. **The DEADLINE is Tuesday, January 6, 2026, at 4 pm.**
   b) The following information must appear at the top of the abstract:
      1. Category (Clinical Medicine or Vignette)
      2. The specialty under which it falls (e.g., Cardiology, Nephrology, Hematology, etc.)
      3. Title
      4. Authors' names
      5. Institution affiliations
      6. As appropriate:
         i. Medical students: entrant's medical school and graduation year
         ii. Residents/Fellows: PG year, expected date of completion of training, and specialty
         iii. For everyone: address and email. **MAKE SURE TO PROVIDE A PREFERRED EMAIL ADDRESS THAT YOU LOOK AT! We will use only one email address per participant.**
   c) Once an abstract is submitted, it cannot be modified (i.e., an updated version will not be accepted later, even before the submission deadline). **Please thoroughly proofread your abstract before submitting it.**
   d) Maximum length for **research** abstract is **250 words**. The maximum length for **a vignette** abstract is **400 words**. Title, authors, and institution affiliations are not included in word count. Do not include captions from photos or graphs in abstract text.
   e) The body of the abstract should include, if applicable, background, methods, results and conclusions. Clinical medicine submissions should include clinical relevance.
   f) Define all abbreviations in the abstract that are exclusive to your institution and not commonly used (to the best of your judgment)
   g) Graphs, figures, and photos should not be included in the submitted abstract, but should be

incorporated into the poster for presentation at the meeting.

h) Authors may submit only one entry to the 2026 symposium.

i) Abstracts are scored on five criteria, each worth 0 to 5 points, for a maximum score of 25 points. The five criteria are:

1. Importance: innovation, relevance, creativity, new or cutting-edge information, originality of approach/intervention, significance, or interest to the audience.
2. A) Methodology: appropriateness of conceptual basis and design for the identified purpose of the study, appropriateness of data collection techniques, development stage (level of data collection completeness);
   OR B) Lessons Learned: appropriateness of conceptual basis and design for the activity, extent to which the lessons learned merit the conclusions.
3. Clarity: development and communication of ideas and findings.
4. Conclusion consistent with data and/or observations. Potential pitfalls of methodology or interpretation addressed. Potential significance of experiments placed in proper perspective.
5. Abstract is in required form and organized, well written, concise, and readable.

j) MSSNY RFS members may review abstracts submitted by medical students. Reviewing students' abstracts does not disqualify residents/fellows from submitting their own abstracts.

k) Authors will be contacted via e-mail regarding **acceptance or denial** as soon as the abstract committee has made its selections.

4. POSTER PRESENTATION

a) Poster display boards will be provided.

b) Posters must fit within a board area that is approximately 6 feet wide by 5 feet high. (Posters can be smaller, but not larger.) A poster size that works well is 4 feet (48 inches) wide by 3 feet (36 inches) high.

c) Push pins will be provided.

d) Posters should include title, authors, institution affiliations, and a detailed description of methods and results. Graphs, tables, and photos are welcome on posters.

e) Poster text should be in 16-point font or larger.

f) No word count is assigned to poster text, but please limit narrative.

g) Posters will be displayed on boards in a gallery area, where entrants must be present to discuss their submissions.

h) Judges will visit and examine each presentation between 12:00 noon and approximately 3:00 pm. Authors must be available for questions during this time.

i) Between approximately 3:00 and 3:30 pm, participants are invited to circulate and visit each other's posters. You may also do so if you arrive early.

j) All participation costs are the responsibility of the entrants. If you leave your poster behind, MSSNY cannot guarantee its return.

5. JUDGING AND AWARDS

a) Bring an 8 ½" x 11" copy of your poster and hand it in at the registration table – this will be a great aid to the judges as they conduct their final deliberations. **PLEASE WRITE YOUR LAST NAME IN THE UPPER RIGHT CORNER OF THIS COPY.**

b) A panel of poster competition judges will be selected by MSSNY prior to the meeting.

1. Each judge will assess approximately eight to ten posters.
2. Each contestant will be visited by at least one, but probably two or more judges.
3. Judges will be wearing a ribbon on their nametag marked "JUDGE."
4. Judges will be assigned posters as they arrive at the symposium. They do not all come at once, so the actual start time for each individual's judging will vary. We respectfully request your patience.

5. Final judging will be done after the symposium. We regret that due to the exigencies of the meeting of which the symposium is a part, we cannot guarantee final results until later in the day or evening. Final results will be emailed to all participants as soon as possible.

c) Authors must be available for questions during the judging and are encouraged to prepare a 5–10-minute oral overview of their posters for the judges as they walk around.

d) Posters will be judged within their category and will be given a final grade, as follows:

CRITERIA: 5 criteria, each worth up to 5 points. Highest score = 25
I. ORIGINALITY: How original is the concept presented in the poster? **OR**, how original is the new approach to an old problem?

2. SIGNIFICANCE: How significant are the poster's conclusions in increasing understanding of a disease process, or in improving the diagnosis or treatment of a disease state, or in disease prevention or health promotion?

3. PRESENTATION: How logical are the ideas presented in the poster? How interesting is the manner of presentation? Was there appropriate use of visual aids and graphics?

4. METHODS: How suitable is the research design for the stated objectives, and how appropriate are any statistical techniques applied? **For case vignettes**, are sound scientific principles used in analysis/interpretation/discussion?

5. INTERVIEW: How knowledgeable and conversant is the presenting author with the research presented in the poster?

e) **Residents/Fellows:** There will be up to three awards for each category: First Place, Second Place and Honorable Mention. Vignettes may have, in addition, a Third-Place category.

f) **Students:** There will be up to three awards in the student category: First Place, Second Place and Honorable Mention. The judges reserve the right, depending on submissions, to divide student posters into vignettes and clinical research, and award prizes accordingly.

g) Winners will receive an award certificate. We hope to be able to give First and Second Place winners a monetary award. All poster contestants will receive a certificate of participation.

Good Luck and we look forward to receiving your submission!

Please be aware that by attending MSSNY's Poster Symposium and/or MSSNY's House of Delegates meeting, you consent to your name and/or your likeness being used without compensation in all media, and you release MSSNY, its successors, assigns and licensees from any liability of any nature.

S U B M I S S I O N S

Medical Students

Poster #	FirstName	Last Name	School	Title	E-Mail	Page
1.	Sophia	Gerberg	Ponce Health Sciences University, MD Candidate 2026	SurgeonVerify: A Mobile, Blunt-End Verification Tool to Prevent Propagation of Procedural and Systemic Errors	sgerberg22@stu.psm.edu	12
2.	Christian Diaz	Curbelo	New York University Grossman School of Medicine, MD Candidate 2027	Clinical and Socioeconomic Characteristics of Alzheimer's Disease Patients With and Without Age-Related Macular Degeneration: A Single-Center Population-Level Retrospective Analysis	christian.diazcurbelo@nyulangone.org	12
3.	Sydney	Barone	Lewis Katz School of Medicine at Temple University, MD Candidate 2027	Facing Pain: Intraoperative Methadone for Facial Feminization Surgery	sydneybarone2@gmail.com	13
4.	Bianca	Acot	Columbia University Vagelos College of Physicians and Surgeons, MD Candidate 2027	A Conundrum for the Differential Diagnosis – Ordering and Interpreting Tests	bga2113@cumc.columbia.edu	13
5.	Alexandra	Walsh	American University of the Caribbean School of Medicine, MD Candidate	Autoresuscitation After Cessation of CPR: A Case of Illustrating the Lazarus Phenomenon	alexandrawalsh@students.aucmed.edu	14
6.	Sargam	Panpaliya	Renaissance School of Medicine, MD Candidate 2027	Associations Between Family Stress and Nocturnal Enuresis in Children: A Systematic Review	sargam.panpaliya@stonybrookmedicine.edu	14
7.	Isabella	Pansini	Donald and Barbara Zucker School of Medicine at Hofstra University/Northwell, MD Candidate 2029	The Novel Fertility-Sparing Management for Abnormal Uterine Bleeding with Bicomuate Uterus	lpansini1@pride.hofstra.edu	15
8.	Stephanie	Rothberg	Donald and Barbara Zucker School of Medicine at Hofstra University/Northwell, MD Candidate 2027	Social Media Content and Engagement for Infantile Hemangiomas: A Comparison Across YouTube and Instagram	srotheberg@northwell.edu	15
9.	Anthony	Curione	SUNY Upstate Medical University, MD Candidate 2029	Deep Extubation: Stop the Buck! Can We Land the Plane Safer	curionea@upstate.edu	16
10.	Katie	Farkouh	SUNY Upstate Medical University Norton College of Medicine, MD Candidate 2026	Gram-Negative Bacterial Respiratory Carriage Among Children with Sickle Cell Disease in Accra, Ghana	farkouhk@upstate.edu	16
11.	Chase	Clark	University of California Davis, MD Candidate 2027	Predicting Postoperative Outcomes with Stemocleidomastoid and Pectoralis Major Muscle Indices	chasecla@buffalo.edu	17
12.	Jenna	Onetto	Jacobs School of Medicine SUNY Buffalo, MD Candidate 2028	Asymptomatic Lingual Osseous Choristoma Following Oral Trauma	jennaone@buffalo.edu	17
13.	Benjamin	Shwartzman	New York Medical College, MD Candidate 2027	Association Between Vitamin D Deficiency and Depression in Young Adults	bshwartz@student.nymc.edu	18

Poster #	FirstName	Last Name	School	Title	E-Mail	Page
14.	Noel	Tomy	New York Medical College, MD Candidate 2027	Severity-Adjusted Racial and Geographical Variation in Pediatric Cardiovascular Hospital Resource Use	ntomy@student.nymc.edu	18
15.	Shivani	Padhi	Touro College of Osteopathic Medicine, DO Candidate 2028	Ticks and Tricks: When Babesiosis Awakens Shingles	sopadhi@student.touro.edu	19
16.	Efren	Rodriguez	Touro College of Osteopathic Medicine, DO Candidate 2026	A Case of Hemophagocytic Lymphohistiocytosis Secondary to Leishmaniasis	erodrigu34@student.touro.edu	19
17.	Justin	Rosales	Touro College of Osteopathic Medicine, DO Candidate 2027	Unraveling the Nexus: Oxidative Stress, Mitochondrial DNA and Cerebellar Dysfunction in Down Syndrome	jrosales3@student.touro.edu	20
18.	Atieh	Ashkezari	New York Institute of Technology, College of Osteopathic Medicine, DO Candidate 2027	Stable Morality in a Declining Landscape: Rural-Urban Disparities in Urologic Cancer Outcomes Across New York State	adehgh02@nyit.edu	20
19.	Kristin	Coletti	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2027	Thiazide Diuretics as First-Line Therapy in African Americans and Hispanics with Hypertension-Evidence Based Practice While Awaiting Further Studies	kcoletti@nyit.edu	21
20.	William	Gao	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2027	Utilizing Machine Learning to Predict Stroke Risk in Patients with Atrial Fibrillation Based Only on Holter ECG Patterns	wgao05@nyit.edu	21
21.	Brianna	Kano	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2028	Utility of Tilt Table Test in Ehler-Danlos Syndrome and Hypermobility Spectrum Disorder	bkano@nyit.com	22
22.	Somya	Panchal	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2028	Usefulness of Virtual Conference to Support Mental Health of Students	somyapanchal00@gmail.com	22
23.	Joseph	Tawfellos	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2027	Implication of Peripheral Nerve Block Timing on Hip Fracture Outcomes	jtawfell@nyit.edu	23
24.	Jared	Wilber	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2028	Do Negative Chronotropic Medications Affect the Outcomes of Tilt Table Testing in Non-Hypermobile Patients?	jwilber@nyit.edu	23
25.	Justin	Adler	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	A Noninvasive Window into Early Kidney Transplant Injury: Imaging Renal Lysine Metabolism in Vivo	Justin.adler@urmc.rochester.edu	24
26.	Rohan	Chanda	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Extended Pneumatic Retinopexy (EPR) in the Management of High-Risk Retinal Detachments: A Case Series	rohan1.chanda1@gmail.com	24
27.	Priyanka	Choudhari	University of Rochester School of Medicine and Dentistry, MD Candidate 2029	Missed for Decades: A Case of Maternally Inherited Diabetes and Deafness	priyanka_choudhari@nurmc.rochester.edu	25

Poster #	FirstName	Last Name	School	Title	E-Mail	Page
28.	Fiona	Connolly	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Unique Challenges and Barriers to Increasing Equitable Access to Neuropalliative Care in Parkinson's Disease: A Scoping Review	fiona_connolly@urmc.rochester.edu	25
29.	Jaeden	Cortes	University of Rochester School of Medicine and Dentistry, MD Candidate 2029	Inpatient vs. Outpatient Nasogastric Tube Feeding in Youth with Anorexia Nervosa and ARFID: Safety and Short-Term Outcomes	Jaeden_cortes@urmc.rochester.edu	26
30.	Anika	Fernandes	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Trends in Antibiotic Resistance in Infectious Keratitis at the University of Rochester	anika_fernandes@urmc.rochester.edu	26
31.	Aditya	Gunturi	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	The Anatomically Incorrect AI Revolution: Preventing Critical Errors in AI-Generated Images of Surgical Procedures	aditya_gunturi@urmc.rochester.edu	27
32.	Karina	Hiroshige	University of Rochester School of Medicine and Dentistry, MD Candidate 2027	The Modular Clinic Model: A Cost-Effective Solution for Student-Run Free Clinics to Sustain Clinical and Educational Objective	karina_hiroshige@urmc.rochester.edu	27
33.	Justine	Lam	University of Rochester School of Medicine and Dentistry, MD Candidate 2029	Preventing Post-Stent Removal UTIs: Evidence for Novel Antibiotic Prophylaxis	Justine_lam@urmc.rochester.edu	28
34.	Md	Hoque	University of Rochester School of Medicine and Dentistry, MD Candidate 2026	A Micronodular Mystery: A Case of Diffuse Pulmonary Micronodules and Severe Hypercalcemia in an Asymptomatic Young Male	md_hoque@urmc.rochester.edu	28
35.	Rohila	Kusampudi	University of Rochester School of Medicine and Dentistry, MD Candidate 2027	A Thematic Analysis of Cultural Sensitivity at Willow Domestic Violence Center	rohila_kusampudi@urmc.rochester.edu	29
36.	Brandon	Lee	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Impact of Substance Use Disorders on Postoperative Complications Following Total Ankle Arthroplasty	brandon_lee@urmc.rochester.edu	29
37.	Saanya	Lingineni	University of Rochester School of Medicine and Dentistry, MD Candidate 2027	Sociodemographic Variation Across Pediatric Traumatic Brain Injury Mechanisms	saanya_lingineni@urmc.rochester.edu	30
38.	Alisha	Patel	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Training AI to Provide a Preliminary Interpretation of the Thyroid on Volume Sweep Imaging (VSI) Ultrasound Images	alisha_patel@urmc.rochester.edu	30
39.	Jordan	Pauley	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Effect of Social Determinants of Health on Adherence to the Early Hearing Detection and Intervention 1-3-6 Benchmarks at University of Rochester Medical Center	Jordan_pauley@urmc.rochester.edu	31
40.	Malika	Rakhmonova	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Sight Unseen: A History of the Ethical Divide Between Child and Adult Anonymity in Clinical Photography in *The Lancelot (1914-1966)*	malika_rakhmonova@urmc.rochestter.edu	31

Poster #	FirstName	Last Name	School	Title	E-Mail	Page
41.	Trenton	Scherger	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Optimizing Use of Mother's Own Freeze-Dried Breast Milk for Fortification of Human Milk Feeds – Making Strides Towards Accuracy and Reliability	trenton_scherger@urmc.rochester.edu	32
42.	Caleb	Wataoka	University of Rochester School of Medicine and Dentistry, MD Candidate 2028	Medical and Undergraduate Students as Effective Hospital Tobacco Treatment Counselors: A Quality Improvement Model	caleb_wataoka@urmc.rochester.edu	32
43.	Ananta	Wadhwa	University of Rochester School of Medicine and Dentistry, MD Candidate 2027	Intermittent Hypoxia and Bedside Monitoring Data Improves Prediction of Bronchopulmonary Dysplasia in Extremely Low Age Gestational Newborns	Ananta_wadhwa@urmc.rochester.edu	33

Residents/Fellows - Clinical Medicine

NO.	FirstName	LastName	Des	Title	E-Mail	Program	Page
44.	Michael	Kaiser	MD, MPH	100%CHA2S2-VASc Score Documentation Achieved with an Automated AF Screening Tool in a Telemetry Unit	mkaiser@sgu.edu	PGY-2 New York Presbyterian Brooklyn Methodist Hospital, Cardiology	33
45.	Barilee	Abueh	MD	Bridging the Gap: Gender Disparities in Hypertension, Diabetes, and Cholesterol Management at a Veterans Affairs Medical Center	barileea@buffalo.edu	PGY-2 VA Medical Center, Internal Medicine	34
46.	Herry	Patel	PMG	From Prescription to Plate: Why Doctors Should Screen for Food Insecurity in the Bronx	harry.patel1155@gmail.com	PGM – NYReach, Essen Health Care	34
47.	Salman	Khan	MD	Association Between Iron Deficiency Anemia and Thrombosis: A Systematic Review	salmanjkhan1@gmail.com	PGY 2 Guthrie Lourdes Hospital, Internal Medicine	35

Residents/Fellows – Vignettes

	FirstName	LastName	Des	Vignette Spec	Title	E-Mail	Program	Page
48.	Darya	Chekhava	MD	Cardiology	A Case of Persistent No-Reflow Phenomenon and Early Post MI Pericarditis	dchekhava@sbhny.org	PGY 2 St. Barnabas Health System, Internal Medicine	35
49.	Angela	Torijano	MD	Hematology	Rapidly Progressive and Severe Hemolytic Anemia Triggered by Epstein-Barr Virus: A Case Report	angela.torijano@gmail.com	PGY-2 St. Barnabas Health System, Internal Medicine	36

POSTER # 1

SurgeonVerify: A Mobile, Blunt-End Verification Tool to Prevent Propagation of Procedural and Systemic Errors

Sophia Gerberg, BA, Ponce Health Sciences University; Richard Schoor, MD, Catholic Health Long Island

BACKGROUND: Preventable peri-operative errors persist despite mandated "Time-Out" protocols, which are typically executed on the sharp end—minutes before incision. Errors introduced earlier, on the blunt end (hours to weeks before the procedure), propagate systemically, increasing risk.

OBJECTIVE: To develop and pilot SurgeonVerify, a mobile digital verification tool designed to function at the blunt end of procedural scheduling to prevent "Never Events" and common procedural errors.

METHODS: The SurgeonVerify application was developed using an iterative design process and rendered as a mobile-accessible HTML interface. The tool's workflow was based on analysis of common real-world failure modes. The tool was utilized prospectively in 20 consecutive cases.

RESULTS: The tool detected two near-miss events (NMEs) in the first six uses (33.3% initial detection rate), including a Medication Error (unrecorded allergy) and a missing prerequisite urinalysis. Following a period of zero detections, two additional NMEs were detected in the last four uses (uses 17-20), bringing the cumulative NME count to four (20% cumulative detection rate). Crucially, the recent NMEs related to cross-provider handoffs and future-dated cases, including a missed pre-operative lab result and a missed/unadjusted anticoagulant order for surgeries scheduled three days in advance.

The continued detection of NMEs confirms that SurgeonVerify functions as a powerful Forcing Function that successfully audits safety-critical data across complex pre-operative timelines and provider inputs, sustaining error prevention.

CONCLUSION: SurgeonVerify is a highly usable, flexible, and scalable digital tool. Its function at the blunt end provides a critical, early-stage safety barrier that complements existing "sharp-end" Time-Out protocols. The data confirms the tool acts as a powerful forcing function, demonstrating a tangible and early safety benefit and warranting further investigation.

POSTER # 2

Clinical and Socioeconomic Characteristics of Alzheimer's Disease Patients With and Without Age-Related Macular Degeneration: A Single-Center Population-Level Retrospective Analysis

Christian Diaz Curbelo[1], Rachel Kenney[1,2,3]
1 New York University Grossman School of Medicine, New York, New York, 2 Department of Neurology, 3 Department of Population Health
Entrant Graduation Year: 2027, christian.diazcurbelo@nyulangone.org

BACKGROUND: Age-Related Macular Degeneration (AMD) and Alzheimer's Disease (AD) are major causes of disability in older adults. Differences in AD patterns between patients with and without AMD are poorly characterized. We evaluated AD prevalence by AMD status across demographic groups, comparing comorbidities, healthcare utilization, and community-level socioeconomic status (SES).

METHODS: We conducted a retrospective cross-sectional cohort study using population-level aggregated EHR data from patients aged ≥75-years-old at a single academic center (Epic Cogito). Data included demographics, cardiovascular comorbidities, clinical encounter settings, and US census ZIP code-level median household income, bachelor's degree attainment, and poverty rates. AD and AMD were identified using ICD-10 codes. Analyses included descriptive statistics, Fisher's Exact Test comparing AD rates by AMD status, and beta regressions modeling ZIP code-level SES-AD associations.

RESULTS: Patients with AMD (n=10,102) had higher AD prevalence (4.12%) than patients without AMD (n=1,706,794; 0.95%) (OR 4.47, 95%CI 4.04–4.94, p-value<0.001), a pattern consistent across most demographic groups. Patients with both diagnoses had higher rates of medical comorbidities and inpatient, outpatient, and telemedicine encounters. Patients with AMD resided in more socioeconomically advantaged areas. Higher SES was associated with increasing AD diagnosis rates among patients with AMD, but not among those without AMD.

CONCLUSIONS: AMD status is associated with distinct comorbidity profiles, healthcare utilization patterns, SES characteristics, and AD diagnosis rates. Differing SES-AD associations likely reflect disparities in diagnostic access rather than biological vulnerability, with AMD amplifying these inequities. These findings highlight the need for more equitable AMD and AD screenings and care for lower-SES populations.

POSTER # 3

Facing Pain: Intraoperative Methadone for Facial Feminization Surgery

Authors: Sydney Barone BA (1), Stephanie Rothberg BA (2), Emily Orsino BS (2), Ashley Howell BS (2), Priscella Nelson MD (3), Nicholas Bastidas MD (1,2)

Institution affiliations: (1) Division of Plastic and Reconstructive Surgery, Northwell Health. (2) Donald and Barbara Zucker School of Medicine at Hofstra/Northwell Health. (3) Northwell Health, Department of Anesthesiology, (1) Lewis Katz School of Medicine at Temple University, class of 2027
sydneybarone2@gmail.com

PURPOSE: Pain after multiprocedural facial feminization surgery (FFS) can be difficult to manage in the transgender population as there is higher incidence of drug use and misuse compared to the general population. This study evaluates the effect of intraoperative methadone, a mu-opioid receptor agonist and NMDA receptor antagonist with selective serotonin reuptake inhibitor (SSRI) properties, on postoperative opioid requirements in patients who underwent FFS.

METHODS: A retrospective review of patients who underwent FFS between June 2023 and September 2025 was conducted. All patients underwent full- or near-full FFS including at least two separate areas of the face (forehead, nose, and chin and/or mandibular angles). Patients received either 20mg of methadone or standard short-acting opioids intraoperatively. 24-hour postoperative opioid requirements were assessed as oral morphine milligram equivalents (OMME). Average OMME between the methadone and non-methadone cohorts were compared using a two-sample t-test.

RESULTS: 100 patients were included in this study. 50 patients received methadone and 50 patients received standard short-acting opioids intraoperatively. Postoperative OMME ranged from 0 to 91.5 in both groups. Average 24-hour postoperative OMME was significantly lower for the methadone cohort (mean 23.34, SD 23.04) than the non-methadone cohort (mean 39.33, SD 23.35) ($p = 0.0008$).

CONCLUSIONS: A single dose of intraoperative methadone during FFS provides analgesia intraoperatively and significantly lowers opioid use over the following 24 hours. Methadone may reduce the need for frequent redosing of short-acting opioids. It should be considered as part of a multimodal regimen to treat pain in the transgender population.

POSTER # 4

A Conundrum for the Differential Diagnosis- Ordering and Interpreting Tests

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INTRODUCTION: Leptospirosis is, classically, a tropical disease transmitted by water contaminated with rodent or dog urine and causing flu-like symptoms. However, NYC has been known to have sporadic cases of leptospirosis, especially in rat-infested areas exposed to moisture. This case report describes a patient presenting with generalized fever, weakness, and a known exposure to rats.

DESCRIPTION: A 54-year-old female was brought to the emergency room with a 3-day history of subjective fever, chills, malaise, occipital headache, bilateral eye pain, nausea, dyspnea, and weakness particularly in her bilateral lower extremities to the point that she could not ambulate. Her father had found her lying on a soiled mattress covered with urine and feces with evidence of rat infestation in her apartment, presumably in the setting of an underlying psychiatric condition. The patient was also noted to have a pruritic rash covering her entire body. On presentation, she had oxygen saturations of 88% on room air. Her physical examination was notable for diffusely scattered hypo- and hyperpigmented macules and papules. Her labs were notable for leukocytosis, transaminitis, and elevated BUN/creatinine, total bilirubin, and alkaline phosphatase. On imaging, chest x-ray showed diffuse bilateral interstitial and airspace opacities and CT chest showed bilateral centrilobular ground-glass opacities, consistent with multifocal pneumonia. Zoonotic infection like leptospirosis was high on the differential due to her exposure history and constellation of symptoms, and she was thus started on empiric doxycycline. Diagnostic workup including leptospirosis respiratory culture and urine antigen test were negative; six days after presentation, leptospira interrogans was diagnosed on Karius test then later, RT-PCR was found to be positive for leptospira DNA.

CONCLUSIONS: This case explores the role of PCR testing and next generation sequencing (NGS) in the diagnosis of uncommon diseases. NGS confirmed by RT-PCR identified leptospirosis, which determined diagnosis and treatment course. For years, PCR testing has allowed for rapid diagnosis of suspected infectious diseases at comparatively low costs. The advent of NGS has highlighted its role in diagnosis when clinical suspicion is high but conventional workup is negative, as well as its ability to detect unexpected pathogens or novel variants. However, NGS has exposed the new challenge of differentiation between significant and insignificant identified organisms. Further education and training can help healthcare professionals integrate technological advances in diagnostic tools into clinical decision making, enabling accurate and efficient diagnosis.

POSTER # 5

Autoresuscitation After Cessation of CPR: A Case Illustrating the Lazarus Phenomenon

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BACKGROUND: The Lazarus phenomenon, defined as the spontaneous return of circulation following cessation of cardiopulmonary resuscitation (CPR), is a rare but clinically significant event that challenges established resuscitation protocols and post–cardiac arrest management. Although infrequently reported, its occurrence carries important clinical, ethical, and medicolegal implications. Increased awareness is necessary to prevent premature declaration of death and to guide post-resuscitation monitoring.

METHODS: Clinical data were obtained through a retrospective review of the patient's electronic medical record, including emergency department, intensive care unit, and inpatient documentation. The patient's hospital course, resuscitative efforts, timing of return of spontaneous circulation (ROSC), and contributing clinical factors were analyzed to characterize features consistent with autoresuscitation.

RESULTS/VIGNETTE: A 59-year-old man with a history of ulcerative colitis, anemia, and prior pulmonary embolism presented to the emergency department after an unwitnessed fall at a nursing home. He was found to be hypoxic, tachycardic, hypotensive, and in respiratory distress, requiring intensive care admission for septic shock of unclear origin. Initial evaluation suggested possible multifocal pneumonia, infectious colitis, or acalculous cholecystitis. His hospital course was further complicated by COVID-19 infection, disseminated HSV infection, CMV viremia, and incidentally discovered multifocal ischemic strokes. On hospital day 16, the patient suffered cardiac arrest and underwent 13 rounds of high-quality CPR with administration of epinephrine and defibrillation. After two minutes of documented asystole and termination of resuscitative efforts, spontaneous circulation returned without further intervention, consistent with the Lazarus phenomenon. The patient was stabilized and transferred to the ICU but subsequently developed recurrent cardiac arrest several hours later and expired despite maximal supportive care.

CONCLUSIONS: This case highlights the unpredictable nature of the Lazarus phenomenon and its implications for critical care practice. It underscores the importance of continued physiologic observation—up to 10 minutes—following termination of CPR, as delayed ROSC, though rare, can occur. Recognition of this phenomenon is essential to inform clinical decision-making, post-resuscitation care, and ethical considerations surrounding death declaration.

POSTER # 6

Associations Between Family Stress and Nocturnal Enuresis in Children: A Systematic Review

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BACKGROUND: Nocturnal enuresis (NE) is a common pediatric condition with multifactorial etiology. Increasing evidence suggests that family-related stressful life events (SLEs) may contribute to its onset or persistence, yet these associations remain poorly characterized.

METHODS: A systematic review of 308 studies was conducted following PRISMA guidelines. PubMed, Embase, Web of Science, and CINAHL were searched for English-language quantitative studies published between January 2000 and July 2025 examining associations between family-related SLEs and NE in children aged 0-18 years. Two reviewers independently screened articles, with disagreements resolved by a third reviewer. Study quality was assessed using the Joanna Briggs Institute critical appraisal tools.

RESULTS: Nine studies (2003-2021), including over 10,000 children across the Middle East, Europe, and the United Kingdom, met inclusion criteria. Five primary stressor domains were identified: parental separation/divorce, bereavement, punitive or harsh parenting, family conflict, and socioeconomic adversity. Punitive parenting demonstrated the most consistent association with increased NE severity and poorer psychosocial outcomes. Parental separation and bereavement were associated with NE primarily when examined as part of cumulative psychosocial stress exposure. Evidence linking low socioeconomic status to NE was mixed.

CONCLUSIONS: Family-related stressors, particularly punitive parenting and cumulative psychosocial stress, are consistently associated with increased risk and persistence of pediatric nocturnal enuresis. These findings support integrating psychosocial screening and family-centered interventions into standard urologic management. Further longitudinal studies are needed to clarify causal pathways and identify protective family factors.

POSTER # 7

The Novel Fertility-Sparing Management for Abnormal Uterine Bleeding with Bicornuate Uterus

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BACKGROUND: Abnormal uterine bleeding (AUB) is a common condition that could escalate into significant iron deficiency anemia. Etiologies include the acronym PALM-COEIN: Polyps, Adenomyosis, Leiomyoma, Malignancy and hyperplasia, Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic and Not otherwise classified (1). Diagnosis of AUB requires detailed history-taking and physical examination, laboratory testing, and imaging. Its treatment can be innovative, particularly in the presence of pre-existing congenital uterine anomalies such as a bicornuate uterus, with limited options from traditional hormonal treatment. Therefore, minimally invasive, fertility-sparing intervention instead of definitive hysterectomy unlocks novel surgical possibilities in this unexplored field. We present a patient who failed medical treatment but desires fertility-sparing surgical options.
CASE: A 41-year-old female presented with heavy, prolonged and intermenstrual bleeding as well as fatigue. The patient wore menstrual pads constantly due to unpredictable vaginal bleeding. Her medical history includes anemia, obesity (BMI of 30), hypertension and type 2 diabetes (HbA1c 14%). The patient takes iron, lisinopril and insulin. Physical examination was within normal range including 10-week-old uterus. Workup revealed iron deficiency anemia (hemoglobin 8 g/dL) and a bicornuate uterus with thickened endometrium. Saline infusion sonohysterography identified multiple endometrial polyps in the right cavity and a 2 cm submucosal leiomyoma in the left. Despite management with combined oral contraceptives, her bleeding persisted for two years. Due to family obligations, and a desire for fertility preservation, the patient declined definitive hysterectomy. She instead underwent a concurrent hysteroscopic polypectomy in the right uterine cavity and myomectomy in the left cavity via MyoSure tissue removal system. Postoperatively, her menstrual cycle normalized within two cycles, with resolution of anemia and no further intermenstrual bleeding for one year.
DISCUSSION: A bicornuate uterus is a congenital anomaly present in approximately 0.4% of females and associated with high prevalence of AUB (>35%) (2,3). Standard management of AUB includes initial hormonal manipulation toward normality, subsequent treatment with progesterone-containing intrauterine device, or surgical alternatives depending on etiology. These are often technically complicated by uterine anatomy and may culminate in total hysterectomy, which carries significant risks and subsequent morbidities with possible sequelae of infertility.
This case demonstrates a novel, fertility-sparing, minimally invasive surgical approach for managing AUB secondary to concurrent polyps and a leiomyoma in a bicornuate uterus after failed medical therapy with birth control pills. To our knowledge, this is the first reported use of hysteroscopic resectoscopy for this specific clinical scenario, which offers a novel, viable alternative to the traditional hysterectomy.

POSTER # 8

Social Media Content and Engagement for Infantile Hemangiomas: A Comparison Across YouTube and Instagram

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BACKGROUND: Infantile hemangiomas (IH) are benign vascular lesions that present in infancy and proliferate rapidly. Many parents seek information through social media. This study aims to characterize and compare the IH-related content on YouTube and Instagram.
METHODS: Top videos were identified on YouTube and Instagram using the search terms “infantile hemangioma” and “strawberry hemangioma.” Of the 289 screened videos, 100 were included in the final analysis. Engagement was measured by views, likes, and comments. Reliability was assessed using the modified DISCERN (mDISCERN) score. The Kruskall-Wallis test was utilized to compare mDISCERN scores across video sources and content types.
RESULTS: Fifty YouTube and fifty Instagram videos were included. Most YouTube videos were posted by healthcare providers (36.0%) or academic institutions (28.0%) and primarily featured clinician explanations (74.0%). The average mDISCERN score was 2.59 ± 0.92, with significantly higher reliability for clinician explanations ($p < 0.001$) and research presentations ($p = 0.023$) compared to patient stories.
Instagram videos were mainly posted by healthcare providers (40.0%) or family members (40.0%), with patient stories being the most common content (54.0%). The average mDISCERN score was 1.55 ± 1.14. Videos from healthcare providers and clinician explanations were significantly more reliable than family members and patient stories videos ($p < 0.001$).
CONCLUSION: IH videos on social media vary in content and reliability. Clinician explanations are significantly more reliable than patient stories, and overall YouTube content is more reliable than Instagram. Increased contributions of high-quality videos from healthcare professionals may improve the reliability of IH information on social media.

POSTER # 9

Deep Extubation: Stop the Buck! *Can we Land the Plane Safer?*

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BACKGROUND: Deep extubation, the technique of removing the endotracheal tube while maintaining the patient in a deep plane of anesthesia, is increasingly utilized in modern airway management due to its potential advantages including a smoother emergence, reduced risk of coughing, and a minimized hemodynamic response. However, this technique is not without its risks and challenges, particularly when it comes to airway safety, selection, and management in the perioperative setting.

METHODS: This poster provides a comprehensive literature review using Google Scholar and PubMed and details the risks, challenges, and best practices associated with deep extubation with a focus on clinical scenarios where this approach may or may not be appropriate.

RESULTS: The primary risks associated with deep extubation include airway obstruction, hypoventilation, aspiration, and the possibility of unanticipated reintubation. Surgical procedures involving high risk for bleeding or airway edema (e.g., head and neck surgeries; thoracic surgeries) often contraindicate deep extubation due to potential airway compromise during emergence. Key considerations in deep extubation management include monitoring anesthetic depth, optimizing muscle relaxation, and ensuring that the airway is fully secure prior to extubation.

CONCLUSION: The review emphasizes the need for more evidence-based guidelines to help standardize best practices and reduce the variability in outcomes. While deep extubation can offer significant advantages in select clinical contexts, its successful implementation requires a balance of patient selection, anesthetic technique, and vigilant monitoring. Clinicians should remain well-informed with both the risks and the innovations available to optimize patient safety during the extubation process.

POSTER # 10

Gram-negative Bacterial Respiratory Carriage among Children with Sickle Cell Disease in Accra, Ghana

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BACKGROUND: Gram-negative bacteria have become an increasing cause of respiratory infections, with heightened risk in children with sickle cell disease (SCD). Antimicrobial resistance has rapidly increased globally, including in Ghana. This study explores the carriage and antibiotic susceptibility of gram-negative bacteria within the nasopharynx of children with SCD compared with non-SCD controls.

METHODS: This cross-sectional study enrolled children under five years of age from sickle cell clinics in Accra, Ghana. Nasopharyngeal swab samples were collected in July 2023 and cultured for gram-negative bacteria. A questionnaire captured patient demographics and clinical information. Antimicrobial susceptibility testing was performed using the Kirby–Bauer disk diffusion method.

RESULTS: A total of 229 participants (113 with SCD and 116 controls) were recruited. Overall, 191 gram-negative isolates were recovered from SCD cases and 198 from controls. The most frequently isolated organism was *Klebsiella pneumoniae* (30.6%), followed by *Escherichia coli* (22.0%). Nearly half of *K. pneumoniae* isolates were extended-spectrum beta-lactamase producers (49.6%), and 61.1% were multidrug resistant. The prevalence of *E. coli*, *K. pneumoniae*, and *Salmonella* spp. was higher among children with SCD; however, only *Salmonella* spp. showed a statistically significant difference compared with controls ($p = 0.049$).

CONCLUSION: This study demonstrates a high burden of multidrug-resistant gram-negative bacterial carriage in young children, particularly those with SCD. The presence of ESBL-producing and multidrug-resistant organisms highlights the need for continued antimicrobial resistance surveillance and context-specific antibiotic stewardship in Ghana.

POSTER # 11

Predicting Postoperative Outcomes with Sternocleidomastoid and Pectoralis Major Muscle Indices

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BACKGROUND: Oral cavity malignancies (OCMs) are often treated with surgery. Sarcopenia is low muscle mass and predicts poor postoperative outcomes. It is measured through skeletal muscle index at the third lumbar level. Most patients with OCMs do not receive lumbar imaging, but rather head and chest imaging for preoperative planning. This study analyzed if muscle indices measured on readily available preoperative imaging could predict postoperative outcomes.
METHODS: Retrospective chart review of patients with surgically resected OCMs was performed from January 2011 to September 2025. Muscle indices for the pectoralis major (PMMI) and sternocleidomastoid (SCMI) were calculated at different spinal levels using computed tomography. All postoperative complications were recorded. Subgroup analysis of complication groups and muscle indices were performed.
RESULTS: 76 patients were included. The PMMIs measured just above the AA and at the T4 level were significantly lower in the altered nerve function (p=0.03) and partial flap necrosis (p=0.045) groups, respectively. The SCMI was significantly lower in the profuse bleeding group (p=0.01). Hematoma, seroma, wound dehiscence, and cellulitis groups demonstrated no significant differences from uncomplicated groups.
CONCLUSIONS: Larger studies are required to address small sample sizes, but preliminary findings suggest three practice alterations. Patients with low PMMIs should have extra care taken to identify and spare nerves intraoperatively and also have close flap monitoring postoperatively. Those with low SCMIs should have donor blood on standby. This study assessed the accuracy of readily accessible muscle indices as a risk stratification tool to help guide surgical decision making and improve patient outcomes.

POSTER # 12

Asymptomatic Lingual Osseous Choristoma Following Oral Trauma

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BACKGROUND: Osseous Choristomas are rare benign lesions composed of mature bone tissue arising in anatomically abnormal locations. In the oral cavity, they most commonly occur on the posterior third of the tongue, near the foramen cecum. Fewer than 100 cases of Lingual Osseous Choristomas have been reported worldwide, leading to debate over their pathogenesis.

CASE REPORT: A 44-year-old woman presented with a slowly enlarging, asymptomatic midline posterior tongue mass. She reported a history of thermal trauma to the posterior tongue preceding lesion development. Physical examination revealed a 10 x 5 mm tan mass adjacent to the foramen cecum. Flexible laryngoscopy excluded ectopic lingual thyroid tissue. The lesion was completely excised. Histopathologic evaluation demonstrated squamous epithelium with acute inflammation overlying mature bone with regenerative changes, consistent with a lingual osseous choristoma. No malignancy was identified, and there was no evidence of recurrence at follow-up.

CONCLUSION: Lingual Osseous Choristomas should be considered as a possible differential diagnosis in asymptomatic patients presenting with posterior tongue masses, particularly in women between the second and fifth decades of life. Although often asymptomatic, patients may present with globus sensation, dysphagia, vomiting, nausea or sore throat. The only definitive diagnosis is through biopsy, with histology showing the appearance of mature lamellar bone tissue covered in mucosal tissue without osteoblastic or osteoclastic activity. Surgical excision is curative, with rare recurrence and no reported malignant transformation. This case supports existing demographic trends and contributes to the understanding of the possible pathogenesis of Lingual Osseous Choristomas within the pre-existing framework of the reactive theory, hypothesizing that pluripotent or ectopic mesenchymal cells undergo reactive ossification after exposure to trauma or chronic irritation.

POSTER # 13

Association Between Vitamin D Deficiency and Depression in Young Adults

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BACKGROUND: Prior studies using NHANES III data reported higher odds of depression among vitamin D–deficient young adults. We aimed to replicate these findings using more recent NHANES data and to examine associations between inflammation and depression.

METHODS: We conducted a cross-sectional analysis of NHANES data. Vitamin D status and depression were assessed in participants aged 15–39 years from pooled 2013–2019 and 2021–2023 cycles (n = 584), defining deficiency as <50 nmol/L and depression as PHQ-9 ≥10. Associations between high-sensitivity C-reactive protein (hs-CRP) and depressive symptoms were evaluated in adults aged ≥18 years using 2015–2019 data (n = 1,180).

RESULTS: Vitamin D deficiency was present in 42.1% of young adults, and 82.5% met criteria for depression, indicating a high symptom burden in this cohort. No association was observed between vitamin D status and depression (p = 0.85), and PHQ-9 scores did not differ across vitamin D categories. In contrast, depressive symptom severity showed a small but significant positive correlation with hs-CRP (r = 0.076, p = 0.010).

CONCLUSIONS: Contemporary NHANES data did not replicate earlier findings linking vitamin D deficiency to depression, likely reflecting differences in depression assessment methods, population characteristics, or temporal trends. The modest association between hs-CRP and depressive symptoms supports inflammation as a contributory, though limited, pathway and highlights the need for longitudinal, mechanism-focused studies with robust confounder adjustment.

POSTER # 14

Severity-Adjusted Racial and Geographic Variation in Pediatric Cardiovascular Hospital Resource Use

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BACKGROUND: Racial and geographic disparities in pediatric cardiovascular hospitalizations are well documented, but many analyses do not adequately account for clinical severity. Observed variation in length of stay (LOS) and costs may reflect case-mix differences rather than inequities.

OBJECTIVE: To quantify how much racial and geographic differences in LOS and costs are attributable to clinical severity and assess whether disparities persist within identical severity strata.

METHODS: Retrospective analysis of 6,177 pediatric cardiovascular hospitalizations (NY SPARCS, 2022–2024). Cases were stratified by APR-DRG Severity of Illness and management type (surgical vs. medical). Median LOS was compared within strata; county-level procedural intensity and volume were examined.

RESULTS: Median LOS was 7.4 days; median cost was $61,280. White/Non-Hispanic patients had shorter LOS (6.6 days) and lower costs ($31,456) than Black/Non-Hispanic (8.9 days; $74,382) and Hispanic patients (8.5 days; $69,114). High-severity (Major/Extreme) cases comprised 54% of Black/Non-Hispanic and 51% of Hispanic patients, versus 33% of White/Non-Hispanic patients. Major cardiac surgery occurred in 46% of high-severity admissions vs. 12% of low-severity. New York County had the highest costs ($118,347), surgical proportion (80%), and per-capita volume. Within Major severity hospitalizations, Black/Non-Hispanic and Hispanic patients had longer median LOS than White/Non-Hispanic patients (9.4 and 8.8 vs. 7.4 days).

CONCLUSION: Racial and geographic differences in pediatric cardiovascular LOS and costs are largely driven by variation in clinical severity and surgical intensity, but persistent LOS differences within identical severity strata suggest additional system-level contributors to disparity.

POSTER # 15

Ticks and Tricks: When Babesiosis Awakens Shingles

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BACKGROUND: Babesiosis is a protozoan infection that is transmitted by Ixodes ticks and invades erythrocytes, which leads to hemolysis and systemic infection. Clearance relies on splenic macrophages and cell-mediated immunity. Stress and immune dysregulation from an acute infection can predispose patients to viral reactivation. Varicella zoster virus (VZV) remains latent in dorsal root ganglia and reactivates when immune surveillance is impaired, resulting in herpes zoster. While Lyme disease, caused by Borrelia spirochetes, has been associated with VZV reactivation, an association between babesiosis and herpes zoster has not been well documented in the scientific literature. We present a case to further elucidate this medical mystery and the lesser known clinical implications of babesiosis.
CASE PRESENTATION: A 69-year-old woman with Raynaud's syndrome, Sjögren's syndrome, and mixed connective tissue disease presented with several weeks of malaise, headaches, left eyelid drooping, diffuse myalgias, arthralgias, nausea, and dysuria. She denied recent illness, sick contacts, or travel. On physical examination, she appeared ill and weak but was alert and oriented, with no focal neurologic deficits. Urinalysis was unremarkable. An extensive laboratory evaluation including Lyme serology, iron studies, thyroid function testing, and microbiologic studies was performed. Lyme titers were negative; however, testing was positive for babesiosis. She was treated with atovaquone and azithromycin for a 7–10-day course with clinical improvement.

Twenty days after completing therapy, the patient returned with new-onset right thigh pain radiating to the buttock. Computed tomography of the abdomen and pelvis was unremarkable. One week later, she developed tingling, pruritus, and decreased sensation over the right anterior thigh extending toward the groin. Physical examination revealed a unilateral dermatomal vesicular eruption consistent with herpes zoster. She was treated with valacyclovir and topical acyclovir with symptomatic improvement.
DISCUSSION AND CLINICAL RELEVANCE: Herpes zoster occurs in older adults and in individuals with impaired cell-mediated immunity. Babesiosis causes hemolytic anemia, cytokine release, and physiologic stress which can suppress immune surveillance. During stress, cortisol can be elevated and dysregulation of innate interferon responses and adaptive T cell immunity can lead to VZV reactivation. The patient's localized thigh pain likely represented the prodromal zoster neuralgia preceding the rash development.

This case supports the possibility of an association between acute babesiosis and subsequent herpes zoster reactivation. It underscores the importance of recognizing prodromal zoster symptoms in immunologically vulnerable patients following acute parasitic infection. Early consideration of herpes zoster in this clinical context may help prevent diagnostic delays and reduce associated morbidity.

POSTER # 16

A Case of Hemophagocytic Lymphohistiocytosis Secondary to Leishmaniasis

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BACKGROUND: This clinical vignette focuses on a 27-year-old female patient who presented to the hospital with a fever of 103.1 for 1 week and during the hospital course developed petechiae, pallor, and splenomegaly. The patient's labs demonstrated pancytopenia, hyperferritinemia, and bone marrow biopsy revealed presence of amastigotes and active hemophagocytosis which based on the HLH-2004 diagnostic criteria indicated hemophagocytic lymphohistiocytosis (HLH) induced by a Leishmania infection. HLH is a disease involving the dysregulated activity of macrophages, natural killer (NK) cells, and cytotoxic T lymphocytes, resulting in hypercytokinemia and immune-mediated injury to various organ systems. HLH can occur due to primary causes such as genetic disorders or can be caused secondarily by an inflammatory insult. It is usually seen secondary to an Epstein-Barr virus (EBV) infection; other common viral etiologies include cytomegalovirus, herpes simplex virus, varicella zoster, measles, human herpesvirus 8 (HHV8), H1N1 influenza, and HIV. In this case, we investigate a rare incidence of HLH secondary to a Leishmania infection. HLH induced by leishmaniasis accounts for less than 2% of HLH cases.
METHODS: A complete blood count, iron studies, liver function test, renal function test, prothrombin time, and partial thromboplastin time were assessed. A bone marrow biopsy was performed further to assess the cause of the patient's symptoms.
RESULTS: Laboratory work revealed a hemoglobin level of 7.2 g/dL, a WBC count of 2,700 cells/mm3, and an undetectable platelet count on the automated cell counter. The level of serum ferritin was assessed and found to be 793 ng/mL. ALT level was found to be 129 U/L, AST was 306 U/L and alkaline phosphatase was 138U/L. The patient was admitted to the intensive care unit and was stabilized. A bone marrow biopsy was performed and revealed trilineage hematopoiesis and hemophagocytic lymphohistiocytosis (HLH), along with amastigote forms of leishmania.
CONCLUSION: The patient was treated with lyophilized amphotericin B followed by miltefosine which effectively resolved the infection as well as the HLH. The importance of this case is to demonstrate the presentation of HLH induced by leishmania infection which is usually associated with EBV and CMV infections, as well as the appropriate treatment approach to improve patient outcomes.

POSTER # 17

Unraveling the Nexus: Oxidative Stress, Mitochondrial DNA, and Cerebellar Dysfunction in Down Syndrome

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Down syndrome (DS) is traditionally defined by intellectual disability, yet motor and gait impairments are major determinants of independence and remain understudied at the molecular level. Increasing evidence suggests that cerebellar dysfunction, driven by mitochondrial and oxidative stress–related pathology, may underlie these physical limitations. This study investigated mitochondrial markers in postmortem cerebellar tissue from individuals with DS and age-matched controls to clarify molecular mechanisms contributing to motor dysfunction. Using mitochondrial DNA isolation, quantitative PCR for DNA and RNA expression, and Western blot protein quantification with ImageJ analysis, we identified convergent disruptions in mitochondrial regulation and cellular stress pathways in DS tissue. DS samples demonstrated a statistically significant increase in mitochondrial DNA copy number, alongside altered transcriptional regulation indicated by reduced cycle thresholds for mitochondrial transcription factor A. Protein analysis revealed significantly elevated amyloid precursor protein and glial fibrillary acidic protein, consistent with DS subject serology and glial activation within the cerebellum, respectively. These molecular alterations align with pathways exhibiting mitochondrial oxidation and neuronal pathology in DS cerebellar tissue. Importantly, this work shifts the focus of DS research beyond cognition, providing molecular evidence that mitochondrial aberrance reflects intrinsic cerebellar pathology other than secondary developmental consequences. By linking mitochondrial dysregulation to cerebellar-mediated disorders, this study introduces new targets relevant to diagnosis, risk stratification, and therapeutic development. Clinically, defining biological drivers of ataxia and balance dysfunction may guide earlier identification of neuronal vulnerability and support the development of interventions aimed at preserving independence and long-term functional outcomes in individuals with Down syndrome.

POSTER # 18

Stable Mortality in a Declining Landscape: Rural–Urban Disparities in Urologic Cancer Outcomes Across New York State

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BACKGROUND: Geographic, behavioral, and workforce disparities contribute to uneven urologic cancer outcomes. This study examined county-level bladder, kidney, and prostate cancer mortality across New York to identify factors associated with rurality, socioeconomic status, and behavioral risk. We hypothesized that rurality, lower socioeconomic status, and higher behavioral risk would be associated with higher county-level urologic cancer mortality in New York.

METHODS: County-level mortality, PSA screening, smoking, and poverty data were obtained from the State Cancer Profiles (2017–2021). Urologist counts were extracted from the American Urological Association (AUA) Workforce Map, which provides county-level distribution of practicing urologists. Counties were categorized as rural or urban using USDA designations. Welch's t-tests compared subgroup means, and Pearson correlations assessed associations.

RESULTS: Rural counties demonstrated significantly higher bladder cancer mortality (4.9 vs 4.1 per 100k; p=0.005) and kidney cancer mortality (4.0 vs 2.9 per 100k; p=0.003), fewer urologists (0.8 vs 6.7 per county; p<0.001), higher smoking prevalence (18.2% vs 15.4%; p=0.016), and lower PSA screening rates (36.4% vs 40.4%; p=0.025) compared with urban counties. Prostate cancer mortality did not differ significantly (17.5 vs 16.1 per 100k; p=0.20). Nearly half of counties showed stable bladder cancer mortality, and one-third showed stable kidney cancer mortality, despite overall statewide declines. Prostate cancer mortality remained stable in only four counties statewide.

CONCLUSIONS: Despite statewide and national declines in urologic cancer mortality, many New York counties, especially rural ones, exhibit stagnant outcomes for bladder and kidney cancer. The lack of a measurable prostate mortality gap, despite varying PSA screening and poverty, suggests that these differences may be outweighed by unmeasured behavioral or environmental factors. Improving workforce distribution and strengthening tobacco-control interventions remain essential to achieving equitable outcomes.

POSTER # 19

Thiazide Diuretics as First-Line Therapy in African Americans and Hispanics with Hypertension- Evidence Based Practice while Awaiting Further Studies

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INTRODUCTION: Efforts to standardize treatment of hypertension across racial groups has gained traction in recent practice. This study aimed to evaluate whether race should influence antihypertensive medication selection among Black and Hispanic populations. The literature proves that racial background of patients should be considered and that Black and Hispanic patients should begin pharmacological therapy with thiazide diuretics.
METHOD: A comprehensive literature review was conducted with electronic databases, and 40 relevant studies were identified. Emphasis was placed on studies involving African American and Hispanic populations. Additionally, national and international guidelines were reviewed to frame the findings within evidence-based practice.
RESULTS: The literature strongly supports thiazide diuretics as foundational therapy for hypertension in Black and Hispanic populations. The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT) demonstrated reduced cardiovascular morbidity and mortality with thiazide diuretics, showing chlorthalidone to be superior to ACE inhibitors and calcium channel blockers. Notably, African American participants experienced worse outcomes with lisinopril compared to chlorthalidone. The GenHAT study confirmed similar blood pressure control with thiazides in African American and Hispanic populations, likely attributable to physiologic variability in renin activity.
CONCLUSION: In African American and Hispanic adults, evidence supports thiazide diuretics as the first-line therapy for hypertension. Studies demonstrate superior blood pressure control and reduced morbidity with thiazide diuretics compared with other antihypertensives. This suggests underlying physiological differences. Utilizing thiazides as first-line therapy remains evidence based, in Black and Hispanic patients. Any future modification to this approach should be guided by research demonstrating equivalent or superior outcomes.

POSTER # 20

Utilizing Machine Learning to Predict Stroke Risk in Patients with Atrial Fibrillation based Only on Holter ECG Patterns

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BACKGROUND: Holter monitors provide continuous ECG recordings and are essential for detecting Atrial Fibrillation (AF), a condition that significantly increases stroke risk. However, the ability of ECG patterns alone to predict risk remains unclear. This study evaluates using Artificial Neural Networks (ANNs) to identify stroke risk directly from ECG signals, potentially offering an automated, streamlined diagnostic approach.

METHODS: Using the open-source SHDB-AF database from PhysioNet (1,780 Holter ECG intervals from 122 AF patients), an ANN was developed in Python using the Keras library. Input variables were strictly limited to ECG interval features; all clinical and demographic data were excluded. The output variable was the CHA2DS2-VASc score, stratified into low, medium, and high stroke risk categories. The dataset was split into training (70%), validation (15%), and independent test (15%) sets. Performance was assessed via accuracy, loss, and weighted/macro-averaged F1 scores.

RESULTS: The ANN achieved accuracies of 98.6% (training), 92.5% (validation), and 94.4% (test). On the independent test set, the model yielded a weighted F1 score of 0.94 and a macro-averaged F1 score of 0.85. High-risk patterns were identified with near-perfect precision. Identification of low- and medium-risk patterns remained strong, demonstrating the model's robustness even across imbalanced class distributions.

CONCLUSION: Stroke risk can be accurately predicted from Holter-derived ECG patterns using ANNs without supplemental clinical data. The model's high performance, especially in categorizing high-risk patients—supports its clinical relevance for rapid stroke risk assessment. However, further training on larger patient populations is necessary to improve generalizability and reliability.

POSTER # 21

Utility of Tilt Table Test in Ehler-Danlos Syndrome and Hypermobility Spectrum Disorder

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BACKGROUND: Ehlers-Danlos Syndrome (EDS) and Hypermobility Spectrum Disorder (HSD) are connective tissue disorders associated with autonomic dysfunction. However, the diagnostic performance of tilt table testing (TTT) in distinguishing autonomic phenotypes in hypermobile populations remains limited. Many patients present with symptoms of dysautonomias despite normal TTT findings.
METHODS: Patients with EDS and HSD who underwent TTT at the Long Island Heart Rhythm Center from 2019-2024 were included. TTT results were classified as normal or abnormal. Autonomic-modulating medications during testing included beta-blockers, midodrine, pyridostigmine, fludrocortisone, and calcium-channel blockers. Chi-square analysis and binary logistic regressions were conducted. Data reported as mean ± standard deviation, and p≤0.05 was statistically significant.
RESULTS: 79 patients were identified: 60 patients with EDS: age 34.45±11.8 years; M/F [6.7%]/[93.3%] and 19 patients with HSD: age 41.8±14.0 years; M/F [21.1%]/[78.9%]. Abnormal TTT rates did not differ significantly between EDS and HSD (46.6% vs 31.6%, p=0.296). In adjusted models, hypermobile phenotype remained non-significant (95% CI [0.15 - 1.6]), p=0.190). However, medication exposure was a confounder; patients on autonomic-modulating agents demonstrated significantly lower odds of abnormal TTT (95% CI [0.04-0.64], p=0.009). In drug class-specific models, beta-blocker predicted reduced TTT abnormality (95% CI [0.01-0.85], p=0.035), while other medication classes showed no statistically significant association.
CONCLUSIONS: TTT did not demonstrate greater diagnostic utility between EDS and HSD populations. Concurrent autonomic-modulating medication therapy, particularly beta-blocker use, reduced abnormal TTT results, consistent with pharmacologic blunting. The negative TTT test may indicate effective therapy for autonomic dysfunctions. Alternative diagnostic strategies may be warranted for comprehensive autonomic evaluation in this population.

POSTER # 22

Usefulness of Virtual Conference to Support Mental Health of Students

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BACKGROUND: During COVID-19, university students experienced heightened stress due to online learning and health concerns. Mindfulness practices, including meditation and breathing exercises, offer practical solutions by regulating stress responses. Aiming to alleviate student anxiety, UCLA's TeamX Health organized a virtual conference that addressed stressors and promoted mindfulness. This paper evaluates the conference's effectiveness in improving student well-being.
METHODS: On April 10, 2021, TeamX Health hosted a two-hour Zoom conference, "Quarantine and Healthy Routine: Managing our Mental Outlook." Four speakers discussed mental health and mindfulness techniques. In collaboration with UCLA's Center for East-West Medicine, an online educational resource library was created for attendees. Promotion occurred through virtual flyers and outreach to UCLA faculty. Pre- and post-conference surveys assessed participant demographics, stress levels, and learning outcomes. A student t-test analyzed stress-level changes ($P < 0.05$).
RESULTS: Participants ranged from first-year undergraduates to graduate students, with most attending west coast universities. Post-survey results showed decreased stress levels regarding social isolation ($P = 0.005$), relationships with relatives ($P = 0.03$), and friends ($P = 0.008$). Most scenarios reflected decreased stress, with changes from –0.3 to –0.6. Nearly all participants (97.56%) rated the conference as useful, and the majority indicated strong likelihood of applying mindfulness moving forward.
CONCLUSION: Findings suggest virtual conferences play a crucial role in equipping students with mindfulness strategies and fostering well-being in academic settings. Despite limitations such as sample size and short follow-up, results highlight the value of expanding virtual mindfulness-based initiatives to foster long-term student well-being in post-pandemic academic environments.

POSTER # 23

Implications of Peripheral Nerve Block Timing on Hip Fracture Outcomes

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BACKGROUND: Peripheral Nerve blocks (PNBs) have become a staple of pain management in hip fracture care – most commonly Fascia Iliac Compartment, Femoral nerve, & pericapsular nerve group blocks.[1] Current literature thoroughly demonstrates the advantages of PNBs, namely reduced post-operative pain & quicker time to mobilization.[2-4] However, current literature fails to describe the effect of PNB timing on post-operative outcomes, which this pilot study attempts to evaluate.

METHODS: *We conducted a retrospective observational cohort study using a hospital database of 952 patients ≥65 years old with non-pathological hip fractures. Patients were group by the timing of their PNB: no block, preoperative, & perioperative. Primary outcomes 30-day admissions and LOS were analyzed using multivariable logistics regression.*

RESULTS: *30 days readmissions occurred in 11.8% of the no block group, 16.5% of the preoperative group, 12.1% of the postoperative group. There was no significantly increased risk of readmission in patients with preoperative block (OR 1.52, 95%CI 0.84-2.73) or perioperative (OR 1.11, 95%CI 0.70-1.75) as compared to no block. LOS was also not significantly different for preoperative (OR 1.07, 95%CI 0.98-1.17) or perioperative (1.03, 95%CI 0.97-1.10) compared to no block.*

CONCLUSIONS: *PNB timing was not independently associated with 30-day readmission or hospital LOS following surgical repair of hip fractures in older adults. These findings suggest that variation in PNB timing does not adversely impact short-term postoperative utilization and may allow clinical flexibility. Interpretation is limited by retrospective design and the absence of pain and opioid use outcomes. Future studies should examine PNB effects on functional recovery and pain control.*

POSTER # 24

Do Negative Chronotropic Medications Affect the Outcomes of Tilt Table Testing in Non-Hypermobile Patients?

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BACKGROUND: Tilt table testing (TTT) is useful in evaluating patients with unexplained or recurrent syncope/presyncope and Postural Orthostatic Tachycardia Syndrome (POTS). Some patients may be on negative chronotropic agents such as β-blockers and nondihydropyridine calcium channel blockers (non-DHP CCB). Although these medications are known to affect TTT outcomes, their impact in patients without underlying hypermobility has not been well characterized. This study investigated whether negative chronotropes affect TTT outcomes in non-hypermobile patients.

METHODS: 91 non-hypermobile patients of the Long Island Hearth Rhythm Center with syncope, presyncope, and/or POTS who underwent TTT between 2019 and 2025 were included in this study. TTT outcomes and concurrent medications were documented. Binary logistic regressions adjusted for age and sex were performed. Data are reported as mean ± SD, with $p \leq 0.05$ considered statistically significant.

RESULTS: 73 (80.2%) patients were not on negative chronotropes: age 40.08±18.3 years; M/F (9.6%)/(90.4%). 18 (19.8%) were on negative chronotropes: age 50.6±17.2 years; M/F (22.2%)/(77.8%). Younger age was associated with a POTS diagnosis during TTT ($p = 0.018$). There was a trend toward fewer TTT-diagnosed POTS cases in those on negative chronotropes ($p = 0.060$). Other logistic regressions were non-significant.

CONCLUSIONS: Negative chronotropic medications may affect the outcome of TTT in non-hypermobile patients, with a trend toward less POTS identified during TTT in those on negative chronotropes. Younger age was associated with POTS during TTT. Case-controlled studies are needed to clarify the impact of these medications on TTT results in this cohort.

POSTER # 25

A Noninvasive Window into Early Kidney Transplant Injury: Imaging Renal Lysine Metabolism In Vivo

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BACKGROUND: Ischemia–reperfusion injury (IRI) is a leading cause of renal allograft failure, yet current diagnostic methods rely on invasive biopsy and lack metabolic specificity. Injury is therefore often detected only after tissue damage has occurred. Hyperpolarized magnetic resonance imaging (HP-MRI) enables real-time, noninvasive visualization of metabolic pathways and may offer a novel approach for detecting early transplant injury. Establishing baseline renal metabolic signatures in healthy tissue is necessary for identifying pathologic deviations.
METHODS: HP-MRI was performed in six healthy C57BL/6 mice following administration of hyperpolarized lysine. *In vitro* nuclear magnetic resonance (NMR) spectroscopy characterized lysine and its downstream post-translationally modified derivatives, selected as candidate contributors to the *in vivo* signal, and assessed pH-dependent spectral changes at pH 7.0, 8.5, and 10.0. Chemical shifts were validated using reference standards and published spectral data.
RESULTS: HP-MRI demonstrated rapid *in vivo* conversion of lysine to a downstream metabolite, indicating active renal lysine metabolism under physiologic conditions. *In vitro* NMR analysis showed minimal spectral differences among lysine derivatives, suggesting that observed *in vivo* changes are not attributable to simple functional group modification. While lysine showed pH sensitivity *in vitro,* this was not consistently observed *in vivo,* implying that additional processes contribute to renal lysine metabolism.
CONCLUSION: HP-MRI enables visualization of renal lysine metabolism *in vivo* and reveals complex behavior not explained by pH or chemical modification alone. These findings establish a metabolic baseline and support investigation of lysine metabolism as a potential noninvasive biomarker for ischemia–reperfusion injury following kidney transplantation.

POSTER # 26

Extended Pneumatic Retinopexy (EPR) in the Management of High-Risk Retinal Detachments: A Case Series

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PURPOSE: To evaluate the effectiveness of extended postoperative retinal tamponade utilizing EPR in managing complex, recurrent retinal detachments.

METHODS: A retrospective observational study was conducted on 21 patients (21 eyes) who underwent EPR at the Virginia Retina Center. Demographic and clinical data were collected, including number and timing of gas injections, duration of tamponade, visual acuity (BCVA), intraocular pressure (IOP), and complications. Follow-up was performed at 1–3, 3–6, and 6–12 months postoperatively. Primary outcomes were retinal reattachment, VA recovery, and IOP trends; secondary outcomes included phthisis bulbi and complications.

RESULTS: Patients received a mean of 3.62 intravitreal gas injections (±1.67; range, 1–6) with a mean total tamponade duration of 88.0 days (±40.5). Retinal reattachment improved by 57.3%, 59.8%, and 58.3% at 0–3, 3–6, and 6–12 months ($p < 0.0001$). BCVA remained largely stable ($p > 0.05$). Mean IOP decreased from 15.5 mmHg to 9.3 mmHg at 12 months ($p > 0.05$). No eyes progressed to phthisis bulbi. No major complications occurred.

CONCLUSIONS: EPR was associated with improved retinal reattachment and prevention of phthisis bulbi in complex, recurrent detachments. Although visual recovery was variable, anatomical stabilization was consistent. EPR may reduce the need for silicone oil salvage in recurrent retinal detachment repair.

POSTER # 27

Missed for Decades: A Case of Maternally Inherited Diabetes and Deafness

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BACKGROUND: Maternally inherited diabetes and deafness (MiDD) is a rare mitochondrial disorder most commonly caused by a m.3243A>G point mutation in the MT-TL1 gene. Due to the variable phenotypic expression and overlap with more common forms of diabetes, MiDD is often misclassified as type 1 or type 2 diabetes mellitus (T2DM). Characteristic features include early-onset diabetes in lean individuals, sensorineural hearing loss, and a maternal family history of similar findings. Multisystem involvement may also occur, and misclassification as T2DM can delay diagnosis and lead to use of first-line therapies such as metformin, which are generally avoided in mitochondrial diabetes due to increased risk of lactic acidosis.

CASE PRESENTATION: A 46-year-old lean male presented for endocrine evaluation with a long-standing diagnosis of T2DM. He was initially diagnosed at age 27 years after presenting with severe hyperglycemia (>300 mg/dL) and hypertriglyceridemia-induced pancreatitis, and he was originally managed with insulin. His glycemic control improved rapidly, and he was subsequently transitioned to oral antihyperglycemic therapy with metformin and glipizide. He also had a history of bilateral mild-to-moderate sensorineural hearing loss in early adulthood requiring the use of hearing aids. Despite this constellation of features, a unifying diagnosis was not initially considered.

Further evaluation was prompted when the patient's sister, who also had diabetes and hearing loss, underwent genetic testing and was diagnosed with MiDD; her children were also affected. Genetic testing in our patient confirmed the same pathogenic mitochondrial variant in MT-TL1 (m.3243A>G) with 27% heteroplasmy, consistent with MiDD. Review of family history supported maternal inheritance pattern, including diabetes and hearing loss in the patient's mother and multiple maternal relatives.

The patient later reported exercise intolerance with muscle soreness upon exertion. Given evidence that mitochondrial dysfunction may contribute to exercise-related symptoms in MiDD, coenzyme Q10 therapy was initiated, resulting in symptom improvement at follow-up. Routine laboratory evaluation, including a complete metabolic panel, was unremarkable. Recognizing the multisystem nature of mitochondrial disease, cardiology evaluation and ongoing surveillance was recommended.

CONCLUSION: MiDD remains underrecognized due to its clinical overlap with more common forms of diabetes. This case highlights that the combination of early-onset diabetes, sensorineural hearing loss, and a maternal family history should prompt consideration of mitochondrial diabetes and trigger genetic evaluation. Early recognition of MiDD allows for appropriate genetic counseling, avoidance of potentially harmful therapies, symptom-directed management, and surveillance for multisystem complications, ultimately improving patient outcomes.

POSTER # 28

Unique challenges and barriers to increasing equitable access to neuropalliative care in Parkinson's disease: A scoping review

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BACKGROUND: Neuropalliative care (NPC) aims to improve quality of life for individuals with Parkinson's Disease (PD) through non-motor symptom and pain management, caregiver support, emotional/spiritual support, advanced care planning and specialist/hospice referral. NPC is underutilized by individuals with PD from underserved communities: the reasons for this inequity are not fully understood.

The purpose of this review is to synthesize the current literature related to access to NPC for individuals with PD.

METHODS: We conducted a scoping review of the literature to investigate the primary research question, "What are the barriers to equitable access to neuropalliative care in Parkinson's disease?" A literature search was completed on PubMed and Covidence was utilized to review the search results.

RESULTS: Of the 383 articles identified, 27 were included in the final review. Four Themes were identified: a) Lack of knowledge of characteristics of normal aging as distinct from PD symptoms; b) Systemic barriers such as skewed geographic distribution of neurologists and insurance coverage for specialist care etc. impede access to NPC; c) Sociocultural misunderstanding and resistance to palliative care; d) Underutilization of innovative and culturally responsive models such as telehealth, and partnerships with community partners.

CONCLUSIONS: Complex barriers impede persons with PD living in underserved communities from accessing NPC. Future directions for improving access to NPC among those from underserved communities could include increasing community outreach, improving awareness about resources provided by NPC, demystifying the term "palliative care" through community-based programs, and increasing appropriate referrals from primary care to neurology.

POSTER # 29

Inpatient vs. Outpatient Nasogastric Tube Feeding in Youth with Anorexia Nervosa and ARFID: Safety and Short-Term Outcomes

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BACKGROUND: Nasogastric tube (NGT) feeding is commonly used in inpatient treatment of restrictive eating disorders, but outpatient use remains uncommon and lacks standardized guidance. Importantly, evidence comparing safety and outcomes across care settings is limited.
METHODS: We conducted a retrospective chart review of 55 youth with anorexia nervosa (AN) or avoidant/restrictive food intake disorder (ARFID) who received NGT feeding at a tertiary eating disorder program between August 2024 and April 2025. Patients were categorized by care setting (inpatient vs. outpatient/residential). Data included demographics, diagnosis, feeding modality, duration of NGT use, caloric intake, weight and BMI at placement and removal, adverse events, and restraint use. Descriptive and comparative analyses assessed weight outcomes and adverse event rates by setting.
RESULTS: Of 55 patients, 42 (76.4%) had AN and 13 (23.6%) ARFID. Baseline BMI, discharge BMI, BMI change, and total weight gain did not differ significantly between inpatient and outpatient groups. Feeding modality differed by setting, with outpatient patients more often receiving continuous feeds and inpatient patients receiving bolus feeds. Inpatients experienced higher rates of facial irritation and vomiting. No significant differences were observed for adverse event rates, nausea, abdominal pain, or diarrhea.
CONCLUSION: Outpatient NGT feeding was not associated with higher overall adverse event rates and produced comparable short-term weight outcomes relative to inpatient care, suggesting no signal of increased risk in appropriately selected youth with AN or ARFID. Although limited by retrospective design and short-term follow-up, findings support the role of outpatient NGT feeding protocols to expand access and reduce hospitalization.

POSTER # 30

Trends in Antibiotic Resistance in Infectious Keratitis at the University of Rochester

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BACKGROUND: Infectious keratitis (IK) is a corneal infection that can cause permanent visual loss. Risk factors include contact lens use and immunosuppression therapy. Initial treatment involves empiric therapy with broad-spectrum topical antibiotics, most commonly fluroquinolones. However, the effectiveness of empiric treatment is challenged by rising antimicrobial resistance. While national studies have highlighted these patterns, such data may not fully reflect local epidemiology. We aim to characterize longitudinal trends in antimicrobial resistance among IK isolates in the Rochester, NY area.
METHODS: We analyzed microbiology data from 936 patients with IK treated at the University of Rochester Medical Center between 2012 and 2022. Antimicrobial susceptibility profiles were obtained from clinical laboratory records. Susceptibility testing followed Clinical and Laboratory Standards Institute minimum inhibitory concentration breakpoints. Multidrug resistance was defined as resistance to ≥2 antimicrobial classes.
RESULTS: The most common pathogens were coagulase-negative *Staphylococcus* (CoNS, n=175), *Staphylococcus aureus* (n=67), and *Pseudomonas aeruginosa* (n=47). Among *S. aureus* isolates, 28.8% were methicillin-resistant and 47.8% were multidrug resistant. CoNS demonstrated higher resistance, with 34.1% methicillin resistance and 54.6% multidrug resistance. *P. aeruginosa* showed minimal resistance. Fluoroquinolone resistance increased over time. *S. aureus* moxifloxacin resistance rose from 5% (2012–2015) to 20% (2020–2022), while CoNS resistance increased from 4% to 57%.
CONCLUSIONS: Over the past decade, fluoroquinolone resistance among IK Staphylococcus species has risen significantly in the Rochester region, challenging empiric treatment strategies. Limitations include incomplete susceptibility data for some isolates. These findings highlight the importance of regional surveillance to guide antibiotic selection and support antimicrobial stewardship.

POSTER # 31

The Anatomically Incorrect AI Revolution: Preventing Critical Errors in AI-Generated Images of Surgical Procedures

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BACKGROUND: Artificial intelligence (AI) models can generate complete, readable medical text outputs; however, whether AI-generated illustrations can achieve the anatomic fidelity required for patient education is unknown. We compared two widely used AI image generators to assess capacity to portray intraoperative urologic anatomy and whether more structured prompts improve image output.

METHODS: 32 illustrations were generated across 8 urologic procedures, 2 models (ChatGPT 5.0 and Gemini Imagen), and 2 tiers of prompt specificity. 4 blinded attending urologists independently rated each image on 5-point Likerts (anatomic accuracy, procedural accuracy, instrument correctness, and aesthetic clarity) and flagged prespecified critical errors (wrong organ, misplaced instrument, mislabeled structures, wrong step sequence).

RESULTS: 0/32 images met the minimal educational suitability threshold (anatomical accuracy ≥3). Every image contained ≥2 critical errors, most commonly mislabeling of key structures (31/32, 97%) and dangerous/misplaced instruments (27/32, 84%), with frequent wrong organ/laterality and unsafe planes (22/32, 69% each). Between models, aesthetic clarity modestly favored ChatGPT at both tiers (p=0.041 for both tiers) and instrument correctness favored ChatGPT at Tier 2 (p=0.047). With structured prompts, ChatGPT reduced wrong-organ and wrong-sequence flags but slightly increased dangerous-instrument errors.

CONCLUSIONS: In this exploratory comparison, AI-created urologic illustrations consistently contained clinically meaningful critical errors across models and prompt tiers, and none met a minimal educational bar. Specifying key structures and steps yielded no statistically significant reduction in error burden. Despite the small dataset, these results suggest that, in their current form, AI image generators may not be ready for patient-facing use.

POSTER # 32

The Modular Clinic Model: A Cost-Effective Solution for Student-Run Free Clinics to Sustain Clinical and Educational Objectives

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BACKGROUND: Student-run free clinics (SRFCs) provide essential safety-net care and formative medical education, offering low-cost services while fostering early clinical leadership and cultural competency. However, limited funding, high administrative costs, and faculty shortages threaten SRFC sustainability. In Rochester, New York, the closure of an SRFC worsened healthcare access in the Maplewood District. We developed and evaluated a low-cost modular SRFC model to address these barriers.
METHODS: Through a partnership with the Maplewood YMCA, we established a modular SRFC in a non-clinical community space. Lean methodology informed a value and needs assessment prioritizing accessibility, safety, and free preventive care while minimizing operational waste. The clinic comprised three temporary exam rooms using mobile dividers, collapsible exam tables, and sound machines for privacy. Digital operations included a REDCap electronic medical record and a web–based internal platform.
RESULTS: From July-November 2023, the clinic was established for $1,050 with an annual budget of $300. Forty-five patients were served (25% uninsured), with a capacity of six patients per two-hour session. Common services included work physicals and basic primary care. Fifty-one medical students volunteered, completing a median of two shifts (IQR 1–2) and four patient encounters (IQR 2–7) per student.
CONCLUSIONS: The modular SRFC model reduced financial and logistical barriers while maintaining educational and clinical impact. Transferability was demonstrated through implementation at a second site, the Re-entry Association of Western New York. Modular SRFCs may offer a scalable, cost-effective strategy to expand safety-net care and medical education in underserved communities.

POSTER # 33

Preventing Post-Stent Removal UTIs: Evidence for Novel Antibiotic Prophylaxis

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BACKGROUND: American Urological Association Guidelines recommend single-dose perioperative antibiotic (ABX) prophylaxis for uncomplicated, non-infected ureteroscopy. However, clinical observation suggests post-stent removal urinary tract infection (UTI) rates may exceed the reported 3%. We evaluated whether a novel 72-hour antibiotic regimen at stent removal reduces infection risk compared to standard single-dose prophylaxis.
METHODS: We performed a retrospective cohort study of adults undergoing string-assisted ureteral stent removal after uncomplicated ureteroscopy by a single urologist at an academic medical center (2/1/2022–2/29/2024; STUDY00010773). Included patients either received standard single-dose perioperative antibiotics (NO-ABX cohort) or a 72-hour antibiotic regimen initiated 24 hours prior to stent removal (72HR-ABX cohort). Exclusion criteria were positive preoperative urine culture, infection-related stones, history of recurrent UTI, or additional postoperative antibiotics. The primary endpoint was UTI within 7 days post-stent removal. Fisher's exact test compared infection rates ($p < 0.05$).
RESULTS: Of 669 subjects screened, 171 met inclusion criteria (NO-ABX n=145; 72HR-ABX n=26). Baseline demographics, body mass index, and diabetes prevalence were similar between groups. Post-stent removal UTI occurred in 15.2% of NO-ABX patients versus 0% in the 72HR-ABX cohort, representing a significant reduction in infection risk (p=0.028; OR 0, 95% CI 0.00–0.94).
CONCLUSIONS: Extended 72-hour antibiotic prophylaxis at stent removal was associated with a lower post-stent UTI rate compared to single-dose perioperative antibiotics. These preliminary findings highlight the potential for prolonged prophylaxis to improve patient outcomes and may inform post–stent removal antibiotic stewardship. A larger study is underway to validate these results and optimize prophylaxis strategies.

POSTER # 34

A Micronodular Mystery: A Case of Diffuse Pulmonary Micronodules and Severe Hypercalcemia in an Asymptomatic Young Male

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BACKGROUND: Severe hypercalcemia is most commonly associated with malignancy or granulomatous diseases and typically presents with constitutional symptoms. We report a diagnostically challenging case of a young, otherwise healthy male with profound hypercalcemia, acute kidney injury (AKI), and diffuse pulmonary micronodules in the absence of symptoms. This case highlights both diagnostic complexity and systems-level barriers affecting vulnerable populations.
CASE PRESENTATION: A 33-year-old incarcerated male with a history of opioid use disorder on buprenorphine was incidentally found to have severe hypercalcemia (14.5 mg/dL) and AKI (creatinine 2.22 mg/dL) on routine laboratory testing. He denied systemic symptoms and appeared well-nourished, with physical examination notable only for chronic plaques on the knees and elbows.
The differential diagnosis included primary hyperparathyroidism, malignancy, rhabdomyolysis, and genetic hypercalcemia. Chest radiograph demonstrated diffuse bilateral micronodular opacities. CT chest revealed innumerable bilateral micronodules with upper-lobe predominance and associated mediastinal and hilar lymphadenopathy. Infectious evaluation, including acid-fast bacilli stains, human immunodeficiency virus testing, and histoplasma antigen, was negative. Further history revealed prior employment in an underground salt mine several years earlier, without other known exposures. Pulmonology and Infectious Disease consultants considered sarcoidosis and occupational pneumoconiosis, including silicosis. Bronchoscopy with endobronchial ultrasound–guided biopsy was planned but could not be completed during hospitalization. The patient was discharged back to jail and subsequently lost to follow-up, precluding diagnostic confirmation.
DISCUSSION: This case illustrates an uncommon presentation of severe metabolic and radiographic abnormalities in an asymptomatic patient. Although sarcoidosis is a well-recognized cause of hypercalcemia via increased 1,25-dihydroxy vitamin D production, our patient's levels were normal, complicating diagnostic interpretation. Imaging strongly suggested a granulomatous or occupational lung process; however, diagnostic progression was limited by systemic barriers rather than clinical uncertainty.
CONCLUSION: This case underscores the importance of maintaining a broad differential diagnosis in patients with discordant clinical and radiographic findings. It also highlights how structural barriers, particularly incarceration, can disrupt diagnostic continuity and delay definitive care.
CLINICAL RELEVANCE: Justice-involved patients face well-documented disparities in access to diagnostic procedures and longitudinal follow-up. This case illustrates how structural factors—specifically incarceration—can disrupt evidence-based diagnostic pathways, leading to loss to follow-up despite high clinical suspicion. Applying a biopsychosocial and structural lens allows clinicians to anticipate institutional barriers, coordinate care across medical and correctional systems, and prioritize early multidisciplinary planning. Integrating these considerations into routine clinical reasoning may reduce diagnostic delays and improve equity in outcomes for vulnerable populations.

POSTER # 35

A Thematic Analysis of Cultural Sensitivity at Willow Domestic Violence Center

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PURPOSE: This study explores provider perspectives on cultural sensitivity at Willow Domestic Violence Center. The team conducted a focus group to understand culturally sensitive care in the context of intimate partner violence and to explore their perspectives on disparities impacting survivors across diverse identities.
METHODS: A recorded focus group was conducted with nine staff members. The audio was transcribed and de-identified, with participants assigned numerical identifiers. The team coded the transcript into eleven predefined categories according to the rapid qualitative analysis (RQA) approach: race, ethnicity, gender, age, sexual orientation and gender minorities, socioeconomic background, nationality, religion, physical, intellectual, and developmental disabilities, deaf and hard of hearing culture, and education of providers. A thematic matrix organized key findings, associated quotations, and researcher observations. The team synthesized the quotations into thematic narratives.
KEY FINDINGS: Participants described diverse barriers that limit care, including inadequate language access, limited representation among staff, and the challenge of addressing trauma in communities with differing cultural norms. Participants discussed Deaf individuals, males, or those with intellectual and/or physical disabilities who were noted as under-researched in previous IPV literature. Participants noted the importance of collaborating with community organizations, mandating trauma-informed care, and offering autonomy in choosing providers.
IMPLICATIONS: These findings suggest the need for research involving groups known to be underserved as well as exploring barriers to IPV care for those with less understood cultures and lower socioeconomic status. Our findings suggest possible benefits of sustained engagement with marginalized communities, collaboration with community organizations, and continuous provider training.

POSTER # 36

Impact of Substance Use Disorders on Postoperative Complications Following Total Ankle Arthroplasty

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BACKGROUND: Total ankle arthroplasty (TAA) is increasingly utilized for end-stage ankle osteoarthritis but remains associated with higher complication rates than other arthroplasties. While substance use disorders (SUDs) have been associated with adverse surgical outcomes, their impact on postoperative outcomes following TAA has not been previously characterized.

METHODS: A retrospective cohort study was performed using the TriNetX database, identifying adults aged 18–89 years who underwent primary TAA between 2010 and 2025. Patients were stratified by documented preoperative SUD and propensity score matched 1:1 on demographics and comorbidities. Primary outcomes included major postoperative medical complications—DVT, PE, acute MI, pneumonia, cerebrovascular events, or sepsis—assessed at 30-, 90-, and 180-days and 1-year. Secondary outcomes included postoperative infection, lower extremity fracture, revision arthroplasty, and wound dehiscence at 1- and 3-years. Odds ratios (ORs) were calculated.

RESULTS: After matching, 1,149 patients were included in each cohort. No significant differences in primary outcomes were observed at 30- or 90-days. Patients with SUD had increased odds of major complications at 180-days (OR=1.76, p=0.012) and 1-year (OR=1.79, p=0.002). At 1- and 3-years, SUD was associated with higher odds of postoperative infection (OR=1.57, p=0.021; OR=1.61, p=0.008; respectively) and lower extremity fracture (OR=1.65, p=0.023; OR=1.64, p=0.012; respectively).

CONCLUSIONS: SUDs are associated with increased mid- and long-term postoperative complications following TAA. Strengths include a large, propensity-matched cohort; limitations include reliance on administrative coding and heterogeneity of substance type and timing. Future studies should stratify risk by substance type and perioperative use patterns to guide preoperative optimization.

POSTER # 37

Sociodemographic Variation Across Pediatric Traumatic Brain Injury Mechanisms

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BACKGROUND: Although prior studies have revealed sociodemographic differences in pediatric traumatic brain injury (TBI), these trends have not been thoroughly examined across specific mechanisms of injury (MOI). We investigated the sociodemographic trends in pediatric patients presenting with TBI across varying MOIs.

METHODS: We performed a single-center, retrospective cohort study including 284 pediatric patients (<18 years) who presented with TBI to a tertiary care, Level 1 trauma center between 2004 and 2021. Differences in age, sex, race, and Area Deprivation Index (ADI) for MOIs were compared using Chi-square tests.

RESULTS: The mean age was 8.7 ± 6.5 years, and 63.7% (n=181) were male. 194 patients greater than 3 years were included in sex-specific analyses. Males (64.4%, n=125) presented significantly more frequently with TBI than females (35.6%, n=69, p<0.001). Sports-related injury was the predominant MOI among males (36.8%, n=46) and occurred significantly more often than among females (p=0.023), whereas MVC was more common among females (40.6%, n= 28; p=0.048). Age-cluster analysis demonstrated distinct patterns: Infants/Toddlers (age 0-5 years) most sustained TBI from falls (45.5%, n=50) and abuse (14.5%, n=16), while Teens (age 13-18 years) were predominantly affected by sports (39.8%, n=43) and MVC (29.6%, n=32). Although overall racial representation mirrored county demographics, Black or African American children suffered disproportionately more TBIs after pedestrian-vehicle incidents (30.3%, n= 10, p=0.020) and had a higher mean ADI than White children (79.2 vs 67.7; p=0.003).

CONCLUSIONS: Mechanisms of pediatric TBI vary significantly by sex, age, and sociodemographic context. These findings highlight areas for age-, sex-, and community-specific prevention strategies.

POSTER # 38

Training AI to Provide a Preliminary Interpretation of the Thyroid on Volume Sweep Imaging (VSI) Ultrasound Images

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BACKGROUND: Thyroid disease affects millions, yet globally, the majority of people lack access to thyroid imaging. We trained AI to detect thyroid tissue and nodules on ultrasound scans obtained by standard volume sweep imaging (VSI) protocol.

METHODS: A medical student with less than 2 hours of VSI training obtained images with the Butterfly iQ+ ultrasound probe. Thyroids and thyroid nodules were frame segmented using MatLab. Measurements of thyroid glands and nodules were made and compared against SOC imaging.
The segmented dataset was processed to train an AI. Frames were segmented by Wavelet Attention (WATUNet). Image fusion was completed to combine the original image with the new nodule mask. Classification was completed on the input transfer imaging through transfer and ensemble learning.

RESULTS: All VSI scans were diagnostically useful, with quality rated as acceptable by readers.
1. Independent models: Multi-AttentionU-Net (n=45); Encoder: ResNET34; Optimizer: AdamW; Dice coefficient: 80.8% (thyroids), 50.53 % (nodules)
2. Independent models: Multi-AttentionU-Net (n=141); Encoder: ResNET34; Optimizer: AdamW; Dice coefficient: 83.3% (thyroids)

CONCLUSIONS: The coefficient of 80.8% suggests the AI can identify US thyroid glands. The nodule coefficient of 50% did not reach threshold. However, coefficients were observed to improve dramatically with more scans; it is possible the efficacy of AI to identify nodules will improve with increased exposure. Findings suggest thyroid VSI AI interpretation has potential for thyroid screening and pathology identification. Our future aim is to train a machine learning model to recognize thyroid glands and nodules from VSI clips and give basic pathology feedback.

POSTER # 39

Effect of Social Determinants of Health on Adherence to the Early Hearing Detection and Intervention 1-3-6 Benchmarks at University of Rochester Medical Center

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OBJECTIVES: This study determined the rate of adherence to the Early Hearing Detection and Intervention (EHDI) 1-3-6 Benchmarks. The effect of social determinants of health (SDoH) on adherence rates was explored. The area deprivation index (ADI) was explored as an independent predictor of outcomes.

METHODS: Patients born between January 2020 and December 2024 at Strong Memorial Hospital and Highland Hospital were eligible for inclusion. Patients with a NICU stay were excluded. Medical records were reviewed for demographic information, audiologic outcomes, and SDoH. Statistical analysis was conducted with R.

RESULTS: 22451 patients were included. 18 patients (0.08%) did not complete the newborn hearing screen (NBHS), and 176 patients (0.78%) received a fail/refer on one/both ears on the NBHS. Of the patients requiring follow-up, 159 patients (82%) completed all milestones, but only 49 patients (25%) completed all necessary milestones in time. Patients with American Sign Language (ASL) as the maternal language (5/10, p=0.02), of Black or African American race (46/62, p=0.02) or with adverse SDoH (3/8, p=0.008) were less likely to meet all milestones. Younger maternal ages (p=0.01), Black or African American race (p=0.004), and increased Area Deprivation Index (ADI) scores (p=0.02) were associated with not meeting milestones in time.

CONCLUSIONS: Patients with a higher ADI were less likely to complete the benchmarks on time but eventually completed all required benchmarks. Black or African American mothers and mothers primarily using ASL were less likely to complete the EDHI benchmarks. Further research must be conducted to determine the etiologies for these differences.

POSTER # 40

Sight Unseen: A History of the Ethical Divide Between Child and Adult Anonymity in Clinical Photography in *The Lancet* (1914–1966)

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ABSTRACT:
For much of the 20th century, there was no shared legal standard to protect the privacy of patients pictured in medical case reports. As a result, anonymization practices varied widely, and decisions about which patients were granted anonymity reflect broader cultural and clinical attitudes toward age, vulnerability, and diagnosis. This project analyzed *The Lancet* from 1914 to 1966—spanning the years before World War I to two years after the Declaration of Helsinki (1964)—to examine patterns of anonymization in published patient photographs, with a focus on differences by age group and diagnosis. A retrospective content analysis was conducted on all patient photographs published in *The Lancet* during this period. Each image was categorized by diagnosis, age (adult or child under 18), and anonymization status, with additional notes on demographic context and method of concealment. Data were compiled and analyzed using chi-squared tests of independence. Further analyses for adults and children groups identified categories with disproportionately high or low anonymization. Across 845 images, anonymization was significantly associated with diagnosis ($p < 0.05$). Children with developmental diagnoses (such as Down Syndrome) and adults with neuropsychiatric conditions were anonymized less frequently compared to other diagnoses. These findings suggest that anonymization was shaped by the necessity of showing the face to fully represent the clinical presentation. Moreover, it is unknown if the patients pictured gave informed consent for the use of their photographs, underscoring the need to critically examine the role of patient photographs in dissemination of medical knowledge and patient-centered practices today.

POSTER # 41

Optimizing Use of Mother's Own Freeze-Dried Breast Milk for Fortification of Human Milk Feeds – Making Strides Towards Accuracy and Reliability

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BACKGROUND: Premature infants have elevated metabolic needs requiring fortification of human milk feeds. Standard fortification strategies use bovine-derived or pasteurized donor human milk–derived fortifiers. Freeze-drying mother's own milk (**MOM**) may allow fortification while increasing dietary MOM exposure. However, data on the accuracy and feasibility of freeze-dried MOM (**FD-MOM**) as a fortifier are limited.
METHODS: Thirty pools of donated premature human milk were analyzed for macronutrients (Miris, Uppsala, Sweden). Pools were spun to generate skim milk. Whole and skim portions were freeze-dried commercially to compare macronutrient recovery. Simulated feeds using skim and whole FD-MOM were prepared to target 28 kcal/oz. Initial feeds assessed caloric percent-efficiency, followed by adjusted feeds accounting for efficiency and powder displacement. Macronutrients were measured by Miris and compared to target values.
RESULTS: Macronutrient content across pools was variable. Caloric density averaged 73.52 kcal/100mL (range: 59.21–87.55). Protein concentration averaged 1.27 g/100mL (range: 0.88–1.67). Caloric percent-efficiency was 64% for skim and 73% for whole FD-MOM. Macronutrient content differed between skim and whole FD-MOM feeds. Caloric density for MOM+whole FD-MOM feeds was 29.03±1.28 kcal/oz (n=27), exceeding the target (p=0.003). Caloric density for MOM+skim FD-MOM feeds was 28.29±0.90 kcal/oz (n=30), which did not differ from target. Average protein content of MOM+whole FD-MOM (1.86±0.50 g/100mL, n=27) was lower than MOM+skim FD-MOM (2.42±0.59 g/100mL, n=30; p<0.0001).
CONCLUSIONS: FD-MOM can accurately fortify breast milk to 28 kcal/oz when macronutrient analysis and reduced powder recovery are considered. Future research is needed to determine micronutrient profiles and clinical outcomes of FD-MOM fortification.

POSTER # 42

Medical and Undergraduate Students as Effective Hospital Tobacco Treatment Counselors: A Quality Improvement Model

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BACKGROUND: Hospital-based tobacco treatment programs reduce smoking-related morbidity. Staffing disruptions during the COVID-19 pandemic halted the nurse-led inpatient smoking cessation effort at UR. The Rochester Model adapted by training medical and undergraduate students as bedside and post discharge call counselors with positive results.

METHODS: Medical and undergraduate students completed two faculty-led, one-hour training sessions and provided bedside counseling and follow-up telephone counseling at 3 and 6 weeks in coordination with the NY State Quitline. Smoking status was assessed at 4 weeks, 3 months, and 6 months. Outcomes were analyzed using both as-treated (AT) and intent-to-treat (ITT) frameworks and compared with historical nurse-led program data.

RESULTS: Twenty-six medical and five undergraduate students participated. Between January 2022 and December 2024, 290 hospitalized smokers were enrolled with follow-up through 6 months. 7-day point prevalence AT quit rates were 55% (4 weeks), 50% (3 months), and 49% (6 months). Corresponding ITT quit rates were 27%, 16%, and 14%. These outcomes were comparable to pre-2022 nurse-led quit rates (AT: 50%, 42%, 38%; ITT: 23%, 16%, 14%; n=385), with no statistically significant differences between student- and nurse-counseled patients.

CONCLUSIONS: Medical and undergraduate students become effective bedside and post-discharge counselors using two brief training sessions, with quit rates comparable to the nurse counselors. The program's 6-month AT quit rate (49%) exceeds a benchmark AT quit rate (25%) designated for successful hospital programs. This program combines training with patient treatment and provides real-world counseling experience to the students at no hospital cost.

POSTER # 43

Intermittent Hypoxia and Bedside Monitoring Data Improves Prediction of Bronchopulmonary Dysplasia in Extremely Low Age Gestational Newborns

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BACKGROUND: Intermittent hypoxemia (IH) events start at and often continue throughout premature newborns' birth hospitalization, making them susceptible to adverse sequelae, including Bronchopulmonary Dysplasia (BPD). The objective of the study was to determine if IH event frequency and duration improved prediction of BPD severity in Extremely Low Gestational Age Newborns (ELGANs, <29 weeks gestation).
METHODS: Real-time bedside monitor data were analyzed from 342 ELGANs, including a subset of 115 infants with Q1-minute vital signs. IH was defined as SpO_2 <85% lasting 10–300 seconds. BPD severity (primary outcome) at 36 weeks' postmenstrual age was assigned using the Neonatal Research Network (NRN) 2019 definition. Multinomial regression models incorporating IH data were generated for postnatal days (PND) 7, 14, and 28 and compared with the 2022 NRN BPD Estimator. Model performance was assessed with AUROC and AIC.
RESULTSs: IH duration, time spent below SpO_2 target, and FiO_2 exposure increased stepwise with worsening BPD severity ($p<0.0001$). In contrast, IH frequency was similar across levels. Models including IH duration outperformed the published estimator at PND 14 and 28, with peak AUROC of 0.79.
CONCLUSIONS: Infants with worse BPD severity experience longer IH events. BPD prediction models are improved with IH data. These data suggest that infants with worse BPD severity experience longer, deeper desaturations.
CLINICAL RELEVANCE: IH event frequency and duration have distinct trajectories. Incorporating IH metrics into BPD prediction models enhances risk stratification earlier in hospitalization and may support identification of BPD endotypes, ultimately enabling more targeted respiratory strategies for ELGANs.

POSTER # 44

100% CHA2DS2-VASc Score Documentation Achieved with an Automated AF Screening Tool in a Telemetry Unit

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BACKGROUND: Atrial fibrillation (AF) is a common reason for hospital admission, particularly on telemetry units, and carries substantial morbidity and mortality. The 2023 ACC/AHA/ACCP/HRS Guidelines, along with recent 2024–2025 cohort studies, recommend routine CHA_2DS_2-VASc assessment during hospitalization for AF patients to guide timely oral anticoagulant (OAC) therapy and reduce thromboembolic risk. Despite the availability of all required data in electronic health records (EHRs), observational studies show that most hospital notes lack CHA_2DS_2-VASc documentation or calculation tools.
OBJECTIVE: To assess the impact of an automated, EHR-embedded tool on achieving universal CHA_2DS_2-VASc score documentation in telemetry patients with AF.
METHODS: A template-based tool was integrated into standard admission history & physical (H&P) notes and daily progress notes. Upon documentation of AF, the tool automatically calculated and displayed the CHA_2DS_2-VASc score. All 1,486 telemetry notes (673 H&Ps, 810 progress notes, and 3 others) from July 28 to November 28, 2025, used this standardized template. A retrospective review confirmed AF documentation and scoring completion.
RESULTS: AF was documented in 141 patients (281 notes). Following tool implementation, 100% of these AF-positive notes contained a complete, clearly visible CHA_2DS_2-VASc score embedded in the note body. Guideline-concordant apixaban dosing recommendations (normal dose, reduced dose, alternative anticoagulant, or contraindicated) were also provided in every case.
CONCLUSION: A simple, zero-cost, template-driven automated tool achieved 100% CHA_2DS_2-VASc documentation compliance within four months on a high-volume telemetry unit. This scalable digital health intervention improves stroke risk documentation, supports guideline-directed care, and offers a readily replicable model to help reduce AF-related strokes across hospitals and health systems.

POSTER # 45

Bridging the Gap: Gender Disparities in Hypertension, Diabetes, and Cholesterol Management at a Veterans Affairs Medical Center

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BACKGROUND: Gender disparities in cardiovascular risk factor management remain a persistent challenge and may contribute to unequal outcomes among veterans. Identifying and addressing these gaps aligns with Veterans Health Administration (VHA) priorities for equitable, guideline-concordant care.

METHODS: We conducted a retrospective quality improvement review using electronic health record data from Buffalo VA Medical Center between April 2023 and May 2025. Two hundred veterans (100 male, 100 female) with hypertension, type 2 diabetes, and hyperlipidemia and at least two primary care visits in the prior year were included. Outcomes assessed included glycemic control (HbA1c <8%), blood pressure control (<140/90 mmHg), and statin adherence. Performance was stratified by gender and compared with national VA benchmarks using descriptive analysis and chi-square testing.

RESULTS: Female veterans demonstrated higher rates of glycemic control compared to male veterans (82% vs 75%). Blood pressure control was also higher among females (76% vs 71%). Statin adherence was comparable between genders (70% female vs 71% male), though greater variability was observed among female veterans. Among veterans with diabetes, blood pressure control remained higher in females (80% vs 74%).

CONCLUSION: This quality improvement initiative identified measurable gender-based differences in cardiovascular risk factor management at a single VA medical center. While female veterans generally achieved higher clinical target attainment, variability in statin adherence highlights opportunities for improvement. Targeted provider education enhanced clinical decision support, and patient-centered engagement strategies may help reduce disparities and promote equitable cardiovascular care for all veterans.

POSTER # 46

From Prescription to Plate: Why Doctors Should Screen for Food Insecurity in the Bronx

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INTRODUCTION: Food insecurity is a critical social determinant of health, particularly in the Bronx, where 34% of adults report stress about obtaining nutritious food, significantly exceeding New York City averages. This economic instability is an upstream driver of poor metabolic health, directly linked to higher prevalences of diabetes, hypertension, and obesity compared to other boroughs.

OBJECTIVES: To document the burden of food insecurity in the Bronx, analyze its association with chronic disease outcomes, and establish a repeatable clinical workflow to integrate food security screening into routine patient care.

METHODS: We reviewed public health data on food pricing and disease prevalence in NYC, alongside literature on the clinical impacts of food instability. We developed a "Screen-Identify-Intervene" workflow utilizing the two-question "Hunger Vital Sign" assessment tool to standardize care for high-risk populations.

RESULTS: Analysis indicates consumers pay twice as much for healthy food compared to unhealthy options, contributing to a 10–34% food insecurity rate in Bronx households. Diabetes-related amputation rates in high-poverty NYC neighborhoods (82 per 100,000) are three times higher than in low-poverty areas (27 per 100,000). Furthermore, food insecurity increases the probability of overnight hospitalization in diabetic adults from 17% to 25%.

CONCLUSION: Food insecurity remains a pervasive driver of health inequity. Moving from "prescription to plate" by implementing routine screening and immediate referral to resources like local food pantry support, nutritional counselling and SNAP/WIC enrollment is a feasible, high-impact intervention that physicians must adopt to mitigate food insecurity induced obesity-related illness and improve long-term outcomes.

POSTER # 47

Association Between Iron Deficiency Anemia and Thrombosis: A Systematic Review

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BACKGROUND: Iron deficiency anemia (IDA) is the most common anemia worldwide. Emerging evidence suggests that it may predispose to thrombotic events. However, the magnitude, spectrum, and clinical relevance of thrombotic risk in adults with IDA remain poorly defined. We systematically reviewed and evaluated the association between IDA and thrombosis in the adult population.

METHODS: A systematic search of PubMed, Google Scholar, and Embase identified 368 studies reporting thrombotic outcomes in adults with clinically defined IDA. After removing duplicates and further screening, 27 full-text articles were assessed for eligibility. Using exclusion and inclusion criteria, three studies were included.

RESULTS: Across the three included studies, a total of 40,015 adult IDA patients were evaluated (mean age 56–64 years; 50–51% female). In the largest cohort of 36,327 IDA patients, 2,834 experienced thrombotic complications. Another study with 1,268 IDA patients showed increased odds of ischemic stroke (OR 1.49; 95% CI 1.39–1.60) after adjusting for comorbidities. In the multi-institutional cohort, one-year risk of venous thromboembolism was hazard ratio 1.75 (95% CI 1.58–1.94), with elevated risk for pulmonary embolism (HR 2.05) and deep vein thrombosis (HR 1.54).

CONCLUSION: IDA in adults is associated with a significant increase in thrombotic risk through reactive thrombocytosis, platelet hyperactivity, and endothelial dysfunction. These findings highlight IDA as a modifiable prothrombotic condition, emphasizing early diagnosis and iron repletion to reduce arterial and venous thrombotic complications.

POSTER # 48

A Case of Persistent No-Reflow Phenomenon and Early Post-MI Pericarditis

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BACKGROUND: Persistent no-reflow (NR) phenomenon is a poorly understood complication of myocardial infarction (MI), characterized by myocardial hypoperfusion despite technically successful percutaneous coronary intervention (PCI). It is associated with poor clinical outcomes, including increased mortality, heart failure, and arrhythmias, and is observed in approximately 0.8% of PCI procedures.

CASE DESCRIPTION: A 53-year-old man with hypertension, hyperlipidemia, uncontrolled type 2 diabetes mellitus, two prior ischemic strokes, and chronic tobacco use presented with a one-week history of substernal chest pain radiating to the left arm. On arrival to the emergency department, he was hypertensive (blood pressure of 221/118 mmHg) and diaphoretic. ECG demonstrated ST-segment elevation in the inferior leads, and initial troponin I was elevated at 6 ng/mL (normal < 0.01 ng/mL) with a subsequent rise to 34.54 ng/ml.

The patient received dual antiplatelet therapy, heparin, and nitroglycerin. Emergent coronary angiography revealed a 100% occlusion of the proximal right coronary artery (RCA) with TIMI 0 flow. A drug-eluting stent was successfully deployed, followed by thrombectomy. Intravascular ultrasound (IVUS) confirmed adequate stent expansion and patency with a minimal lumen area of 19.9 mm^2. However, the NR phenomenon persisted despite interventions. Intracoronary administration of adenosine and nitroprusside did not restore the coronary flow, and the post-procedural TIMI score remained 0.

On hospital day three, the patient developed pleuritic chest pain, and ECG demonstrated diffuse ST-segment elevations consistent with early post-myocardial infarction pericarditis. High-dose aspirin and colchicine were initiated with symptom resolution. Carvedilol was discontinued after episodes of sinus bradycardia and Mobitz type II second-degree atrioventricular block, related to RCA involvement. Patient was discharged on colchicine and aspirin for pericarditis, along with clopidogrel and other medications, with outpatient cardiology follow-up.

DISCUSSION: This case highlights the complexity and multifactorial pathophysiology of coronary NR, which likely results from ischemic injury, reperfusion damage, endothelial dysfunction, and distal microembolization. Persistent TIMI 0 flow despite satisfactory stent expansion confirmed with IVUS supports a predominantly microvascular mechanism. Few studies suggest that intracoronary epinephrine may be more effective in selected cases in comparison with adenosine.

Based on the NORPACS (Norwegian Prognostic and Angiographic Classification System) score, the patient scored 5 points (STEMI presentation, symptom onset >195 minutes, and pre-PCI TIMI 0 flow), placing him at moderate risk for NR phenomenon. This highlights the potential value of incorporating more patient-specific factors, such as glycemic control and smoking history. Improving public awareness of myocardial infarction symptoms is essential to reducing delayed presentation.

POSTER # 49

Rapidly Progressive and Severe Hemolytic Anemia Triggered by Epstein-Barr Virus: A Case Report

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INTRODUCTION: Epstein–Barr virus (EBV)–associated hemolytic anemia is an uncommon immune-mediated complication resulting from antibody-driven red blood cell destruction. Hemolytic anemia is classified as warm or cold autoimmune hemolytic anemia (AIHA) based on temperature-dependent antibody activity. EBV most commonly causes cold agglutinin disease; however, warm AIHA has also been reported. Early recognition is critical, as management strategies differ and delayed diagnosis may lead to severe morbidity.

CASE PRESENTATION: A 41-year-old woman with a history of sickle cell trait and chronic malaria presented with three weeks of fever, chills, and generalized body aches following recent travel to Guinea. On examination, she was febrile (38.5°C), tachycardic, and had scleral icterus and splenomegaly, without rash, synovitis, or dactylitis. Laboratory studies demonstrated normocytic, normochromic anemia with indirect hyperbilirubinemia, markedly elevated lactate dehydrogenase, and low haptoglobin, consistent with active hemolysis. Initial direct antiglobulin testing (DAT) and autoimmune evaluation were negative. Peripheral blood smears excluded sickle cell disease, spherocytosis, and microangiopathic hemolytic anemia.

Given concern for malaria reinfection, empiric artemether/lumefantrine was initiated. Despite therapy, the patient's condition deteriorated with persistent fevers and rapidly progressive anemia, requiring transfusion of 14 units of packed red blood cells as hemoglobin declined from 11.4 g/dL to 4.6 g/dL, accompanied by hypotension. Repeat DAT later became positive for C3d. Broad-spectrum antibiotics and corticosteroids were initiated for suspected autoimmune hemolytic anemia. Blood and urine cultures remained negative, and antibiotics were discontinued. Extensive infectious workup, including serial thick and thin smears and PCR for Plasmodium species, Babesia, and Mycoplasma, was negative. EBV serology and PCR were positive, confirming acute infection. A diagnosis of severe EBV-associated hemolytic anemia was made.

DISCUSSION: This case highlights the diagnostic complexity of EBV-associated hemolysis, particularly in patients with confounding infectious and hematologic risk factors. Although EBV typically causes cold agglutinin disease, warm AIHA should remain a diagnostic consideration.

CONCLUSION: EBV-associated hemolytic anemia is rare but potentially life-threatening. Clinicians should maintain a high index of suspicion for EBV in cases of unexplained hemolysis. Early diagnosis and timely corticosteroid therapy are essential for improving outcomes.