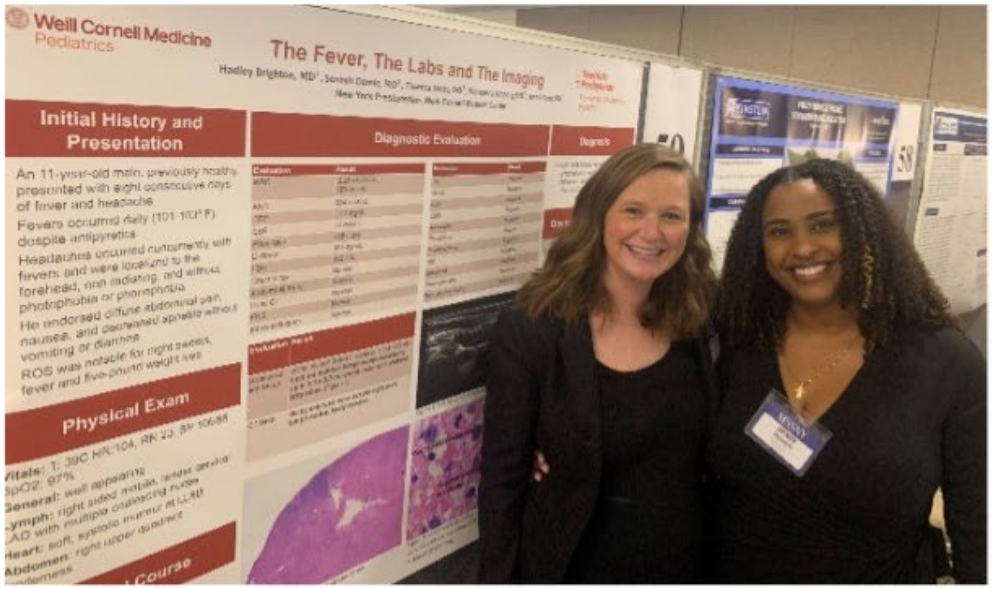
ABSTRACT BOOK

RESIDENT, FELLOW, AND MEDICAL STUDENT POSTER SYMPOSIUM



MSSNY HOUSE OF DELEGATES
TARRYTOWN, NEW YORK

MSSNY Resident, Fellow and Medical Student Poster Symposium
April 21, 2023
Tarrytown, New York

JUDGES

(As of date of printing)

Niraj Acharya, MD
Lance Austein, MD
Vanessa Cutler, MD
Raja Flores, MD
Herman Kalia, MD
Sandhya Malhotra, MD
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Angela Scicutella, MD
John Sullivan, MD
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Takeko Takeshige, MD
Peter Wyer, MD

16th Annual MSSNY Resident/Fellow and Medical Student Poster Symposium
Submission Guidelines

MSSNY Medical Student and Resident/Fellow members are invited to submit abstracts that will be considered for poster presentation.

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, April 21, 2023
Time: 12:00 Noon – 3:00 pm
Location: Westchester Marriott, 670 White Plains Road, Tarrytown, 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 **www.mssny.org**.
   c) A $75 **non-refundable** symposium entry fee will be charged upon **SUBMISSION OF YOUR ABSTRACT**. This fee supports the symposium. Please click this link to submit payment: https://www.medicaleducationny.com/checkout/order.aspx?&forid=3 **Check with your Program Director to determine if they will reimburse this fee.**
   d) Deadline for abstract submission is 4 pm on Monday, January 16, 2023.
   e) We only guarantee scoring of the first 100 resident/fellow abstracts and the first 40 student abstracts received. Abstracts must be scored to be considered for poster presentation.
   f) The top 50 resident/fellow and top 20 medical student scores will be invited to present posters in April.
   g) Each applicant may submit only one abstract.
   h) Those submitting abstracts for consideration must be first authors of the research.
   i) All submissions must be original works of individuals actively engaged in residency or fellowship training or enrolled in medical school.
   j) Posters previously entered in a MSSNY symposium cannot be resubmitted.
   k) 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.)
   l) Authors of entries accepted for the symposium must be able to attend the meeting and be present to discuss their submissions.

   m) 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.**

[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.

n) Questions? Email Kathy Rohrer at **krohrer@mssny.org** or call 516-488-6100 x 396.

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 the 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**. **Deadline is Monday, January 16, 2023, 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 2023 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 do 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 12:30 pm and approximately 2:30 pm. Authors must be available for questions during this time.
i) Between approximately 2:30 and 3:00 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: 10 criteria, each worth up to 10 points. Highest score = 100
I. ORIGINALITY: How original is the concept presented in the poster? **OR**, how original is the new approach to an old problem?

2. ACCURACY: Are there any spelling errors? Is the format aligned? Is there anything missing?

3. VISUAL: How effective is the poster visually? Was there appropriate use of visual aids, graphs and/or charts to enhance understanding of the research?

4. 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?

5. PRESENTATION: How logical are the ideas presented in the poster? How interesting is the manner of presentation?

6. VALUE: How valuable is the poster overall in furthering viewers' understanding of the research subject? How valuable is each figure and graph in furthering viewers' understanding of the research subject?

7. 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?

8. CLARITY: Is the data summation correct? Was the conclusion a clear representation of the research presented?

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

10. USE OF TIME: Did the presenter(s) keep their discussion to the designated time duration (5-10 minutes)?

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, Second and Third Place winners a monetary award. All poster contestants will receive a certificate of participation.

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	Apitz	New York Medical College, MD Candidate 2023	Trends in Student Research Prior to and During the COVID-19 Pandemic at a New York Medical School	sapitz@student.nymc.edu	12
2.	Amanda	Elimian	New York Medical College, MD Candidate 2025	Trends in Menstruation-Related Discussion on Twitter Due to COVID-19	aelimian@student.nymc.edu	12
3.	Yonaton	Kadish	New York Medical College, MD Candidate 2024	Uterine Artery Embolization, Intention to Treat with 5 Fr vs 2.7 Fr Catheter and Effect on Radiation Exposure, Symptom Improvement and Sexual Satisfaction	Ykadish2@student.nymc.edu	13
4.	Miriam	Katz	New York Medical College, MD Candidate 2025	Mobile Health Interventions and Remote Blood Pressure Monitoring in U.S. Populations Experiencing Disparities: A Systematic Review and Meta-Analysis	Mkatz34@student.nymc.edu	13
5.	Emanuel	Mordechaev	New York Medical College, MD Candidate 2024	White Dot Syndrome – Delayed Bilateral Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE)	emordech@student.touro.edu	14
6.	Medha	Reddy	New York Medical College, MD Candidate 2024	Evaluating Changes in Prenatal Care Adequacy and Birth Outcomes during the Coronavirus Disease 2019 Pandemic	Mreddy3@student.nymc.edu	14
7.	Sarah	Rubin	New York Medical College, MD Candidate 2025	Care Retention Among Persons Living with HIV in a Safety Net Health System During COVID-19 Pandemic	Srubin27@student.nymc.edu	15
8.	Ariel	Sacknovitz	New York Medical College, MD Candidate 2025	Characteristics and Inpatient Outcomes of Patients Selected for Surgical Treatment of Trigeminal Neuralgia	Asacknov2@student.nymc.edu	15
9.	Merit	Gorgy	New York Medical College, MD Candidate 2024	Acute Kidney Injury (AKI) due to Ibuprofen Intentional Overdose in Young Adults During COVID-19 Pandemic	Ssha33@student.nymc.edu	16
10.	Rachel	Spronz	New York Medical College, MD Candidate 2025	Changes in School-Age Children's Wellbeing and School-Related Needs during the COVID-19 Pandemic	rspronz@student.nymc.edu	16
11.	Anaz	Uddin	New York Medical College, MD Candidate 2025	What Was Old is New Again. Transcarotid Access for Mechanical Thrombectomy in Acute Ischemic Stroke: A Meta-Analysis and Systematic Review	auddin@student.touro.edu	17
12.	Richard	Wang	New York Medical College, MD Candidate 2024	RNS with Bilateral Thalamic Electrodes in the Pulvinar Nuclei in Two Patients with Refractory Lennox-Gastaut Syndrome	Rich_wang@live.com	17
13.	Lauren	Williams	New York Medical College, MD Candidate 2024	FDY-5301: An Innovative Approach to the Treatment of Revascularization Coronary Injury	Lwilliam35@student.nymc.edu	18
14.	Alisha	Daroch	CUNY School of Medicine, MD Candidate 2026	A Novel Fertility Preserving Surgical Approach to Xanthogranulomatous Oophoritis	alishadaroch@gmail.com	18
15.	Anna	Fagbemi	CUNY School of Medicine, MD Candidate 2024	I Have a Drinking Problem: Alcohol Use Disorder Post Gastric Weight-Loss Surgery	Afagbem000@citymail.cuny.edu	19
16.	Samantha	Lau	CUNY School of Medicine, MD Candidate 2023	Dual AAV-Mediated Gene Replacement Therapy Improves the Vestibular Function in a Mouse Model of USH1B	Slau001@citymail.cuny.edu	19
17.	Sarah	Papa	SUNY Upstate Medical University, MD Candidate 2025	Protocol Biopsy Post Kidney Transplant: Clinical Application and Efficacy to Detect Allograft	papas@upstate.edu	20

Poster #	FirstName	Last Name	School	Title	E-Mail	Page
18.	Rebekah	Schwartz	SUNY Upstate Medical University, MD Candidate 2024	Inheritance-Specific Dysregulation of Th1 and Th17 Associated Cytokines in Alopecia Areata	schwarre@upstate.edu	20
19.	Camiren	Carter	NYU Grossman School of Medicine, MD Candidate 2025	Post-Artesunate Delayed Hemolysis After Treatment of Malaria in a Traveler Returning from Ghana	camiren.carter@nyulangone.org	21
20.	Dennis	Phan	University of Rochester School of Medicine and Dentistry, MD Candidate 2024	Watts Happening: Comparing the Thermal Profile of Holmium: YAG Laser (HL) Lithotripsy at Fixed Power (40W) in an Anatomical Hydrogel Pelvicalyceal System (PCS) Model	dennis.phan@umrmc.rochester.edu	21
21.	Christian	Coletta	New York Institute of Technology College of Osteopathic Medicine, DO Candidate 2023	Impact of U.S. Health Policy Measures on Live Organ Donation	ccoletta@nyit.edu	22
22.	Anais	Di Via Ioschpe	Icahn School of Medicine at Mount Sinai, MD Candidate 2024	Contextualizing the Impact of Pop Culture on Breast Implant Illness and its Medical Relevance	aioschpe@bu.edu	22
23.	Catherine	Stratis	Icahn School of Medicine at Mount Sinai, MD Candidate 2025	Paper Tape Improves Scar Aesthetics and Prevents Wound Closure Complications	Catherine.stratis@icahn.mssm.edu	23
24.	Harjot	Uppal	Albany Medical College, MD Candidate 2024	Coordination of Care in a Medicare Physician-Led Accountable Care Organization Decreases Costs Associated with Postoperative Management of Patients Undergoing Total Hip and Knee Arthroplasties	Hsuuppal12@gmail.com	23
25.	Sarah	McNeilly	Albert Einstein College of Medicine, MD Candidate 2025	Future Docs for Abortion Access: Coalition-Building Lessons from NYC Medical Students	Sarah.mcneilly@einsteinmed.edu	24
26.	Matthew	Saleem	Donald and Barbara Zucker School of Medicine, MD Candidate 2024	A Bibliometric Analysis of Highly-Cited Transoral Robotic Surgery Studies	Mosei2@pride.hofstra.edu	24
27.	Nicholas	Leung	Donald and Barbara Zucker School of Medicine, MD Candidate 2026	Hemorrhagic Ovarian Cysts Following Hormonal IUD Insertion	Nleung2@pride.hofstra.edu	25
28.	Nidhi	Patel	Renaissance School of Medicine, Stony Brook University, MD Candidate 2025	Social Prescribing: Recommending Community Engagement to Patients in Order to Enhance Treatments and Outcomes in Medical Care	Nidhi.patel12@stonybrookmedicine.edu	25
29.	Ashna	Raiker	Renaissance School of Medicine, Stony Brook University, MD Candidate 2025	Assessing Attitudes Towards Telehealth in an Underserved, Uninsured Patient Population	Ashna.raiker@stonbrookmedicine.edu	26

Residents/Fellows - Clinical Medicine

NO.	FirstName	LastName	Des	Title	E-Mail	Program	Page
30.	Nariman	Abedini	MD	Standardizing Obesity Patient Education at a Community Hospital Pediatric Clinic: A Quality Improvement Project	nabedini@rumcsi.org	PGY-2 Richmond University Medical Center, Pediatrics	26
31.	Toshihide	Kuroe	MD	Ultrasound Findings in Acute Appendicitis and Body Mass Index in Children and Adolescents in Two Urban Community Hospitals	toshihide0320@gmail.com	PGY-3 Flushing Hospital Medical Center, Pediatrics	27
32.	Sandy	Ma	MD	Peanut Allergy and Anaphylaxis in Children and Adolescents in an Urban Multiethnic Community Hospital	sandyma1990@gmail.com	PGY-3 Flushing Hospital Medical Center, Pediatrics	27
33.	Nolan	Nielsen	MD	Reducing Excessive Variability in Infant Sepsis Evaluation	nnielsen@rumcsi.org	PGY-3 Richmond University Medical Center, Pediatrics	28
34.	Asif	Uddin	MD	Inpatient Rheumatology Consultation Prompted by Positive Autoantibodies in Patients Receiving IVIG Therapy: A Case Series and Literature Review	asif1uddin@gmail.com	PGY-4 Stony Brook University Hospital, Rheumatology	28
35.	Calvin	Ta	MD	Impact of Age, Gender, Comorbidities, and Vaccination Status on Long Covid in Brooklyn Community	cta@maimonidesmed.org	PGY-1 Maimonides Medical Center, Internal Medicine	29
36.	Xiteng	Yan	MD	Evaluating the Efficacy and Safety of Insulin Glargine as a Basal Insulin Regimen in Patients with Gestational Diabetes	xiteng.yan@snch.org	PGY-3, Mount Sinai South Nassau, Obstetrics & Gynecology	29
37.	Daniel	Zinkovsky	MD	Factors Associated with Heart Failure Readmissions at a Suburban Community Hospital	daniel.zinkovsky@snch.org	PGY-2 Mount Sinai South Nassau, Internal Medicine	30
38.	Irina	Balan	MD	It is Possible to Address Disparities Regarding Race and Sex in Advance Care Planning: A Performance Improvement (PI) Project	ibalan@montefiore.org	PGY-4 Montefiore Medical Center, Geriatrics	30
39.	Ryan	Berry	MD	The Psychological Construct of Malignant Self-Regard and Its Relation to Self-Reported Perceptions of Social Support	rberry3@northwell.edu	PGY-3 Mather Hospital Northwell Health, Psychiatry	31

Residents/Fellows - Vignettes

	FirstName	LastName	Des	Vignette Spec	Title	E-Mail	Program	Page
40.	Jocelyn	McCullough	MD	Cardiology	Cardiomyopathy and Chagas Disease	jmccullough1@northwell.edu	PGY-3 Northwell Southshore University Hospital, Internal Medicine	31
41.	Binay	Kshetree	MD	Cardiology	Delayed Detection and Presentation of Ventricular Septal Defect After One Year of St-Elevation Myocardial Infarction (STEMI): Do We Need More Early Follow-up Echocardiography After Myocardial Infarctions?	binaykshetree8910@gmail.com	PGY-3 Cayuga Medical Center, Internal Medicine	32
42.	Carlos	Collado-Rivera	MD	Cardiology	Atypical Presentation Mimicking Infective Endocarditis: Incidental Cardiac Papillary Fibroelastoma with False Positive Blood Cultures	ccolladoRiver@northwell.edu	PGY-2 Northwell Health at Mather Hospital, Internal Medicine	32
43.	Chandra	Chhetri	MD	Cardiology	Stress Cardiomyopathy Secondary to Albuterol Use	cchhetri@northwell.edu	PGY-1 Northwell Health at Mather Hospital, Internal Medicine	33
44.	Jordan	Daloya	MD	Cardiovascular Disease	Acute Heart Failure Following Valve Replacement in Congenitally Corrected Transposition of the Great Arteries (ccTGA)	egehres@northwell.edu	PGY-3 Northwell Health at Mather Hospital, Internal Medicine	33
45.	Maryam	Hassanesfahani	MD	General Surgery	Deep Neck Infection, A Case Report and Review of the Literatures	maryam.h.esfahani82@gmail.com	PGY-2 Flushing Hospital Medical Center, General Surgery	34
46.	Anna	Ekin	MD	Infectious Disease	A Traveler's Mistake: Catching Malaria	aekin@tbh.org	PGY-1 The Brooklyn Hospital Center, Family Medicine	34
47.	Christina	Rustscheff	MD	Infectious Disease	Feasibility and Outcomes of Monoclonal Antibody Administration in the Emergency Department for Non-Hospitalized Patients with COVID-19	c.rustscheff@gmail.com	PGY-3 Good Samaritan University Hospital, Emergency Medicine	35
48.	Zeinab	Abdulrahman	MD	Internal Medicine	Acute Hyponatremia Post Mild Symptomatic COVID-19 Infection	zabdulrahman@northwell.edu	PGY-3 Northwell Health at Mather Hospital, Internal Medicine	35
49.	Hayder	Azeez	MD	Internal Medicine	A Case Report: I Can't Believe It Is the Mirtazapine- Dysphagia in Elderly Women	hazeez@northwell.edu	PGY-3 Northwell Health at Mather Hospital, Internal Medicine	36
50.	Karim	Makhoul	MD	Internal Medicine	Prion Disease After COVID Infection	karimakhoul@hotmail.com	PGY-1 Queens Hospital Center, Internal Medicine	36
51.	Raul	Lopez Fanas	MD	Internal Medicine Endocrinology	Acute on Chronic Pancreatitis: Revenge of the Triglycerides	rlopezfana@montefiore.org	PGY-2 Montefiore Medical Center, Internal Medicine	37
52.	Evelyn	Vasquez	MD	Internal Medicine Gastroenterology	Down the Black Tunnel: A Case of Acute Esophageal Necrosis	ecapellanv@montefiore.org	PGY-2 Montefiore Medical Center, Internal Medicine	37

	FirstName	LastName	Des	Vignette Spec	Title	E-Mail	Program	Page
53.	Azeem	Aratsu	MD	Neurology	A Case of Carotid Artery Dissection Due to Chronic Cough in a Healthy Male	azeemarastu@gmail.com	PGY-2 Jamaica Hospital Medical Center, Internal Medicine	38
54.	Shaheryar	Usman	MD	Internal Medicine Neurology Infectious Disease	Septic Shock from Pan-Epidural Abscess Attributed to Recent Acupuncture and Trigger Point Injections for Nonspecific Chronic Low Back Pain in Previously Undiagnosed Diabetic Patient	susman1@northwell.edu	PGY-2 Northwell Health at Mather Hospital, Internal Medicine	38
55.	Murriam	Masood	MD	Pediatrics	It's Complicated: Cases of IVIG Resistant Kawasaki Disease with Macrophage Activation Syndrome in an Infant and Parapneumonic Effusion in a Toddler	mmasood@rumcsi.org	PGY-1 Richmond University Medical Center, Pediatrics	39

POSTER # 1

Trends in Student Research Prior to and during the COVID-19 Pandemic at a New York Medical School

Authors:
Sofia Apitz, New York Medical College, Class of 2023
sapitz@student.nymc.edu
Rebecca Starkman, New York Medical College, Class of 2022
rstarkma2@student.nymc.edu
Cara L. Grimes MD, MAS, Departments of Obstetrics and Gynecology and Urology, New York Medical College, Valhalla, NY
cara.grimes@wmchealth.org

BACKGROUND: Due to COVID-19, the medical school experience has changed drastically. So far, the impact of COVID on student extracurricular activities in medical school, such as research, is unknown.

METHODS: This is a descriptive study of how medical students at New York Medical College (NYMC) engaged in research between 2013-2021, before and after the COVID-19 pandemic. NYMC is a private medical college of about 800 students in Valhalla, NY, a suburb of New York City. The NYMC Institutional Review Board confirmed exempt status (#14536). We evaluated participation in medical student-specific research programs from 2013-2021, including the Medical Student Summer Research Fellowship for first-year students, the annual Medical Student Research Forum, and research electives for third- and fourth-year students.

RESULTS: At least 1,281 students participated in research from 2013-2021. Students receiving the Summer Research Fellowship between 2013 and 2021 increased over time. The number of presentations at the Medical Student Research Forum declined from 93 in 2020 to 68 in 2021. The number of students participating in research electives has increased from 28 in 2013 to 131 in 2021.

CONCLUSIONS: Despite the challenges that have been introduced during the COVID-19 pandemic, medical students at our institution have continued to engage in research. However, certain aspects such as the annual Medical Student Research Forum may have been affected by the transition to an online format.

POSTER # 2

Trends in Menstruation-Related Discussion on Twitter due to COVID-19

Authors: Amanda Elimian, Allegra Volpacchio De Landri, Eva Chorna, Cara L Grimes, M.D., MAS, Elizabeth D Drugge, PhD, MPH
Elimian (2025), Volpacchio De Landri (2025), Chorna (2024): New York Medical College School of Medicine, Valhalla, NY
Grimes: Department of OB Gyn and Urology, New York Medical College, Valhalla, NY
Drugge: Department of Public Health, NYMC School of Health Sciences and Practice, Valhalla, NY
aelimian@student.nymc.edu

BACKGROUND:
Online access to sexual and reproductive health information has become crucial for people since the onset of COVID-19. Twitter is frequently used because of its simplicity and ability to connect millions. We hypothesize that engagement with tweets about menstruation/periods increased on Twitter after the onset of COVID.

METHODS:
We utilized Symplur to collect data on hashtags (#PeriodTalk) and topics (Birth Control), commonly-used to discuss menstruation and associated issues. We compared data from 07/2017-12/2019 to 01/2020-07/2022 to represent before and after COVID spread. Metrics of engagement (tweets, retweets, impressions, top users and terms), etc, were collected. Data was reported as counts (percentages) and compared via proportions test of difference.

RESULTS:
Some metrics of engagement with the #periodtalk hashtag including users (+21.8%), visuals (+50.5%,), and impressions (+19.1%) increased after COVID onset. Others including tweets (-5.5%), retweets (-26.7%), articles (-28.5%) decreased. All had $p < 0.001$ except tweets ($p=0.0032$). All metrics of engagement with the birth control topic decreased including tweets (-60.9%), retweets (-69.1%), users (-55.4%), articles (-66.04%,), visuals (-53.6%), impressions (-60.8%). All had $p < 0.001$.

CONCLUSIONS:
While the number of #periodtalk tweets decreased, users and impressions increased, suggesting an increase in participants sharing information. All metrics of engagement in the birth control topic decreased suggesting external influence on the frequency of discussions online. Due to decreased physical access, it is encouraging that users are able to have health-related conversations on Twitter.

POSTER # 3

Uterine Artery Embolization, Intention to Treat with 5 Fr vs 2.7 Fr Catheter and Effect on Radiation Exposure, Symptom Improvement and Sexual Satisfaction

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All Uterine Artery Embolization (UAE) procedures performed at Montefiore (Moses Campus) beginning July 1, 2018, were retrospectively identified. The medical record was reviewed to evaluate for type of catheter intended to be used, catheters used, and fluoroscopy time/dose. Patients who underwent a radial artery approach, had an ovarian artery embolization, had gel foam embolization, or had the procedure for oncologic or acute hemorrhage treatment were excluded. The groups were separated by intention to treat with a macro- or microcatheter approach and the first 40 patients in each group were selected for further review by a phone interview survey to evaluate for pre- to post-procedural changes. The scoring difference before and after the procedure was then analyzed using a Welch two sample T-test.

There was no significant difference in patient BMI, procedural mean fluoroscopy time or DAP between the groups. 32/40 patients in the macrocatheter group and 28/39 patients in the microcatheter group responded. There was no significant difference between the groups in terms of change in symptoms and in ability to obtain an orgasm. There was a statistically significant difference between the groups in terms of sexual drive and sexual satisfaction.

In conclusion, there is no evidence of worse outcomes in the macro-catheter group. The theoretical disadvantages of the macro catheter approach in terms of sexual outcomes remains anecdotal as in our study, the macrocatheter group had a statistically significant greater improvement in sexual drive and satisfaction as compared to the micro-catheter group. In addition, the macrocatheter costs less than the microcatheter.

POSTER # 4

Mobile Health Interventions and Remote Blood Pressure Monitoring in U.S. Populations Experiencing Disparities: A Systematic Review and Meta-Analysis

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BACKGROUND: Hypertension (HTN) remains a leading cardiovascular disease risk factor, and disparities in blood pressure (BP) control persist in underserved communities. While advances in mobile health (mHealth) technologies have increased individuals' access to routine HTN care, few studies have analyzed mHealth intervention use in disadvantaged populations.

METHODS: Our systematic review searched seven databases through September 2022 for mHealth interventions to manage HTN in underserved subgroups, stratifying by race/ethnicity, income, and other sociodemographic characteristics. Our primary outcome included 6-month changes in systolic BP (SBP) and diastolic BP (DBP). Subgroup analyses examined BP changes stratified by sociodemographic representation across studies.

RESULTS: Among 2,644 studies identified, 26 studies met our inclusion criteria. 8,388 participants were represented in our analysis and demographic characteristics were similar between intervention and control groups (intervention: mean age 57.2 years; 59.8% women; 41.2% Black; 21.9% Hispanic; 26.9% low-income). Overall, HTN control (BP ≤130/80 mmHg) in the intervention and control groups was achieved in 13 studies and 8 studies, respectively. In the 19 studies that reported 6-month BP changes, reductions in SBP and DBP values in the intervention group were -7.0 mmHg (control: -2.8 mmHg) and -3.6 mmHg (control: -1.6 mmHg), respectively. Subgroup analysis showed studies with a higher representation of Hispanic, low-income, and lower-educated participants had smaller BP improvements than studies with a lower representation of these groups.

CONCLUSIONS: This review provides further support of mHealth interventions for HTN management. Future studies and community-based initiatives are needed to increase intervention access and ensure effectiveness across all populations.

POSTER # 5

White Dot Syndrome - Delayed Bilateral Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE)

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BACKGROUND: Acute posterior multifocal placoid pigment epitheliopathy (APMPPE) is a white dot syndrome with an incidence of 0.15 cases per 100,000 people. Bilateral creamy/white placoid lesions are found in the retinal pigment epithelium (RPE); unilateral cases often have fellow eye involvement within a few weeks. APMPPE is a choroidal vasculitis that causes RPE hypoxia and subsequent lesion formation. It is self-limiting, but foveal lesions and comorbid cerebral vasculitis confer worse visual outcomes and warrant treatment with steroids.

This vignette details a rare case of delayed bilateral APMPPE, in which unilateral lesion resolution was followed by contralateral eye involvement two years later.

METHODS: A 38-year-old female patient was seen in a Mount Sinai ophthalmology clinic in 2020 and 2022. Color fundus photos (CFPs), optical coherence tomography (OCT), and fluorescein angiography (FA) were performed during both visits.

RESULTS: In January 2020, this patient had blurry vision in the right eye (OD). Her left eye (OS) was spared. She endorsed a viral GI illness one month prior. Visual acuity was 20/25 -2 OD and 20/20 -1 OS. OD CFP revealed creamy/white, parafoveal placoid lesions confirmed on OCT. FA showed early hypofluorescence and late hyperfluorescent staining of the OD lesions, consistent with APMPPE. Early and late patterns are due to choroidal hypoperfusion and vascular leakage, respectively. Brain MRI ruled out comorbid cerebral vasculitis. Foveal lesions were treated with oral prednisone and omeprazole GI prophylaxis. Her lesions regressed two months later, and OD vision improved to 20/25 +1.

Two years after unilateral APMPPE resolution, this patient presented in August 2022 with distorted OS vision. She received a flu vaccine one month prior. CFP revealed parafoveal lesions, this time in the left eye. OCT and FA confirmed the lesions. She was diagnosed with delayed bilateral APMPPE; steroids led to lesion regression two months later.

CONCLUSIONS: Acute central vision disruption in the setting of macular placoid lesions is consistent with APMPPE. This white dot syndrome is often preceded by a viral prodrome or vaccination, both of which were seen in this case. Choroidal inflammation seen in APMPPE may thus stem from infectious or immune-driven processes. Single eye involvement with delayed bilateral APMPPE, as seen in this patient, is very uncommon. This case demonstrates that lesion resolution in one eye can be followed by contralateral eye involvement years later, highlighting the importance of routine monitoring for vision preservation in patients with unilateral APMPPE.

POSTER #6

Evaluating Changes in Prenatal Care Adequacy and Birth Outcomes during the Coronavirus Disease 2019 Pandemic

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BACKGROUND: Pregnant women were one of the most vulnerable populations during the Coronavirus Disease 2019 (COVID-19) pandemic. Understanding how the pandemic influenced prenatal care utilization and birth outcomes of pregnant populations is essential to guiding disaster preparedness in the face of future global threats. We sought to evaluate the COVID-19 pandemic's influence on the adequacy of prenatal care and birth outcomes.

METHODS: Retrospective cohort study compared prenatal care adequacy, diagnostic testing, and gestational age of 481 patients seen at an urban medical center in New York City during the pandemic (October 1, 2020 and October 14, 2020), and in the corresponding pre-pandemic period (October 1, 2019 and October 14, 2019) using student t-test, Mann-Whitney, and chi-squared tests.

RESULTS: Patients seen during the pandemic were more likely to receive Adequate Prenatal Care (OR 2.634 95%CI 1.672-4.184 $p < 0.001$) than pre-pandemic patients (OR 0.385 95% CI 0.244-0.606 $p < 0.001$). Adequate Prenatal Care (OR 0.102 95%CI 0.014-0.763 $p = 0.005$) was negatively associated with early preterm pregnancy (32-36 weeks). There were no statistically significant differences in gestational age between the pre-pandemic and pandemic cohorts (Moderate Preterm 32-36 weeks OR 1.145 95%CI 0.532-2.465 p=0.845, Early Term 37-38 weeks OR 1.049 95%CI 0.658-1.671 p=0.905, Full Term OR 1.044 95% CI 0.689-1.581 p=0.916).

CONCLUSIONS: Though the pandemic imposed unprecedented stresses upon expectant mothers, patients had significantly greater likelihoods of receiving adequate prenatal care during the pandemic. Despite this increase in prenatal care adequacy, the pandemic had no statistically significant influence on preterm birth rates.

POSTER # 7

Care Retention Among Persons Living with HIV in a Safety Net Health System During the COVID-19 Pandemic Era

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BACKGROUND: For persons living with HIV (PLWH), regular engagement in HIV care is essential to establish and maintain viral load suppression and decrease morbidity and mortality. Recent literature has demonstrated that delay or avoidance of healthcare utilization among the general population during the COVID-19 pandemic. However, few studies have assessed care delay or avoidance among PLWH.
METHODS: For this project, we provide a recent estimate of retention in HIV primary care in the context of the COVID-19 pandemic within the nation's largest safety-net health system. This serves as a part of our effort at New York City Health + Hospitals (H+H) to build validated systems for key indicators that will help track quality across the system, and better identify patients in higher need of support.
We analyzed electronic health record data of PLWH that had an HIV primary care visit at H+H during January 1st, 2020–June 30th, 2020. We considered a PLWH to be retained in care if they had at least one medical visit in each 6-month period from January 1st, 2020-December 31st, 2021, with a minimum of 60 days between first medical visit in the previous 6-month period and the last medical visit in the subsequent 6-month period. Qualifying medical visits were HIV primary care visits which had to occur within the same facility for any individual patient. We excluded patients who died during January 1st, 2020–December 31st, 2021.
RESULTS: 10,282 patients met study inclusion criteria, 7,269 (70.7%) of whom were retained in care during the study period. Majority (98.3%, n=10,110) of patients visited only 1 H+H facility, 1.5% (n=115) of patients visited 2 facilities, and 0.1% (n=14) of patients visited 3 or more facilities. For patients that visited only 1 facility, 99.2% (n=7,212) met the definition for 24-month retention; 0.8% (n=56) of patients were retained in care for those that visited 2 facilities, and 0.07% (n=1) were retained for patients that visited 3 facilities.
CONCLUSIONS: Most patients (70.7%) were retained in care for 24-months. Furthermore, the vast majority of patients were engaged in HIV primary care at a single facility. Visiting only one facility correlated with higher retention rates amongst patients; this suggests that it may be beneficial to ensure continuity of facility for our patients. There are limitations, including the small number of patients who visited more than one facility, making the findings of a decreased retention rate amongst this population a less reliable result. Future directions include developing reasons for lack of retention and variables associated with higher and lower rates of retention, so that retention can be improved.

POSTER # 8

Characteristics and Inpatient Outcomes of Patients Selected for Surgical Treatment of Trigeminal Neuralgia

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BACKGROUND:
Trigeminal neuralgia (TN) is characterized by severe, unilateral, episodic pain in the face, provoked by light touch. Treatment of this condition can be both operative and nonoperative. We aimed to compare outcomes in TN patients based upon whether they received operative or nonoperative treatment.

METHODS:
Patients with TN admitted between 2016 and 2019 were extracted from the Nationwide Inpatient Sample. Using ICD-10 codes, we identified patients with a primary diagnosis of TN, separating them into operative and nonoperative treatment groups.

RESULTS:
Of 20,180 inpatient admissions with TN, 13,045 (64.6%) underwent surgery. Advanced age, female sex, Medicaid, and Medicare were less prevalent in the surgical group ($p < 0.001$). Factors positively associated with surgical treatment were Caucasian race (OR; 1.382, $p < 0.001$), smoker status (OR; 1.135, $p = 0.007$), and private insurance (OR; 2.349, $p < 0.001$). Diabetes mellitus, hypertension, hyperlipidemia, CHF, COPD, depression, anxiety, and alcohol abuse were also less prevalent in the surgical cohort ($p < 0.001$). The surgery group was less likely to have DVT ($p = 0.012$), pulmonary embolism ($p < 0.001$), or pneumonia ($p < 0.001$). Prolonged length of stay was seen less with operative management (OR; 0.482, $p < 0.001$).

CONCLUSIONS:
Patients with TN admitted for surgical treatment had a lower incidence of complications, comorbidities, and Medicaid payer status. A prolonged hospitalization pattern was observed in the nonsurgical group. Our findings also indicate that TN patients who were treated with surgical management had private health insurance and were predominantly Caucasian, indicating a potentially underserved population of patients with this condition.

POSTER # 9

Acute Kidney Injury (AKI) due to Ibuprofen Intentional Overdose in Young Adults During COVID-19 Pandemic

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BACKGROUND: Ibuprofen is a commonly used and easily accessible over-the-counter drug (OTC), that is known to be a cause of acute kidney injury (AKI). During the COVID-19 pandemic, overdoses and overdose-associated deaths in the US increased by almost 30% compared to previous years. We sought to investigate reported cases of AKI due to ibuprofen intentional overdose in adolescents during the pandemic.

METHODS: Cases were obtained using the FDA Adverse Event Reporting System (FAERS) database from 2017 to 2021. Pediatric reports of AKI were calculated per year. Indication for ibuprofen use was investigated and analyzed for significance.

RESULTS: 147 AKI cases were identified, of which 52 cases (35.4%) were due to ibuprofen overdose. The mean age of cases was 16.2 ± 1.46 years. When trended by year, cases were found to peak in 2020, with both the number of AKI and the number of overdose-associated AKI cases reaching the maximum of all reported cases. In 2021 the percent of ibuprofen overdose AKI cases increased.

CONCLUSION: We found that the percentage of ibuprofen overdoses that accounted for AKI cases from 2020 to 2021 increased by 11.5%, with ibuprofen overdose accounting for more than half of ibuprofen-associated AKI cases in 2021. Interestingly, 83.3% of the female overdoses resulted in AKI versus only 16.7% of male overdoses resulting in AKI in 2021. The exact role the pandemic played in the observed increase in both ibuprofen intentional overdose and AKI cases is not definitively known, but ibuprofen-associated AKI in children should be further investigated.

POSTER # 10

Changes in School-Age Children's Wellbeing and School-Related Needs during the COVID-19 Pandemic

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BACKGROUND: Nearly three years following COVID-19-related school closures, we sought to determine whether school-aged children's wellbeing has recovered and characterize changes in school-related needs from 2021 to 2022.

METHODS: We surveyed parents of children enrolled in grades K-12 in the 2021-2022 academic year in June 2021 and one year later (June 2022). Parents were participants in the Understanding America Study, a nationally representative probability-based internet panel of families completing regular internet-based surveys. Parents completed the Strengths and Difficulties Questionnaire (SDQ) and reported their child's general health and needs for school-related services. Weighted regressions examined associations among wellbeing, needs, and socio-demographic characteristics.

RESULTS: 1,504 participants completed baseline and 1,199 completed follow-up surveys. The percentage of children with deficits in total difficulties (22.8% vs. 20.2%, p = 0.014), hyperactivity (24.5% vs. 21.4%, p = <0.001) and prosocial behavior (38.6% to 34.3, p = <0.001) decreased from baseline to follow up, but a high percentage of children continued to have peer problems (30.2% vs. 31.6%, p = 0.285). Parents reported receiving support from their school for 45.3% of their needs during the 2021-2022 school-year but 72.5% of parents continued to have at least one school-related need for the 2022-2023 school-year. Highest priority needs were academic enrichment, socialization, physical activity, tutoring, and coping with stress.

CONCLUSIONS: While many children with school-related needs early during the pandemic received school support, a large percentage continue to have needs and experience peer-related problems. Continued investment in school-based services is necessary to support child health.

POSTER # 11

What was Old is New Again. Transcarotid Access for Mechanical Thrombectomy in Acute Ischemic Stroke: A Meta-Analysis and Systematic Review

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BACKGROUND: Our goal was to evaluate the effectiveness and safety of using transcarotid access for mechanical thrombectomy in cases where the procedure may fail due to difficult anatomic access or peripheral arterial occlusive disease. Transcarotid access is an alternative to the more commonly used method, but it has not been widely adopted due to concerns about safety. This study aims to explore the efficacy of transcarotid access in the setting of acute ischemic stroke.

METHODS: The PRISMA guidelines were followed to conduct a systematic review of articles published from 2010 to 2020 that discussed the pre-intervention characteristics, techniques, and outcomes of patients who underwent mechanical thrombectomy via trans-carotid puncture. A meta-analysis was then performed to examine the clinical outcomes, reperfusion times, and overall complication rates of the trans-carotid approach.

RESULTS: In the six studies included in this analysis, there were a total of 80 attempts at carotid access, with 72 of those attempts being successful (a 90% success rate). The direct carotid puncture method was the most commonly used technique, particularly as a rescue approach when initial femoral access was unsuccessful (87% of patients). Successful recanalization was achieved in 76% of patients. 28% of patients had a 90-day modified Rankin Scale score of 2 or lower. The average carotid puncture-reperfusion time was 32 minutes (95% confidence interval: 24-40 minutes; $p < 0.001$). Cervical complications occurred at a rate of 26.5% (95% confidence interval: 17%-38%). Only 1.3% of patients (1 out of 80) had a fatal outcome, and most complications (96%) required no intervention.

CONCLUSIONS: According to our results, the transcarotid approach is safe and effective, making it an option to consider when other methods such as transfemoral or trans-radial access are not feasible. This suggests that transcarotid access may be a viable alternative in cases where thrombectomy attempts via other routes have failed.

POSTER # 12

RNS with Bilateral Thalamic Electrodes in the Pulvinar Nuclei in Two Patients with Refractory Lennox-Gastaut Syndrome

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BACKGROUND: Thalamic stimulation has shown success in reducing seizures for patients with DRE. While stimulation of the anterior and centromedian thalamic nuclei have shown benefit, less is known of the effects with electrode placement in the pulvinar nuclei. Open loop stimulation of the anterior nucleus is the only thalamic stimulation method FDA-approved for epilepsy, however closed-loop RNS has potential advantages in regards to data collection, stimulation adjustment and side effect profile.
Here we present the clinical evaluation, operation, and short-term follow up of two patients with drug refractory epilepsy (DRE) who were treated with responsive neurostimulation (RNS) at the bilateral pulvinar nuclei.

METHODS: A 13-year-old male has Ohtahara syndrome and Lennox Gastaut syndrome (LGS). He continued to have seizures despite multiple prior surgeries, so a RNS was placed with electrodes in his bilateral pulvinar nuclei.
A 21-year-old male with LGS, cerebral palsy, shunted hydrocephalus and severe cognitive delay had a prior RNS placed that was not effective. The prior depth electrodes were removed and replaced with electrodes at his bilateral pulvinar.

RESULTS: For both patients, the bilateral pulvinar stimulation has been safe with no apparent neurologic side effects. The pulvinar electrodes are capturing seizures for both patients; subclinical seizures in the 13-year-old patient and clinical seizures in the 21-year-old patient. Both RNS devices are being programmed as per usual protocols.

CONCLUSIONS: RNS with electrode placement in the pulvinar nuclei is safe for patients with DRE and is effective at capturing seizure onset for clinical and subclinical seizures. Seizure improvement in the immediate follow-up has not been seen; this is expected given the short follow-up and known delay in improvement that occurs with RNS. Longer follow-up will shed light on the reduction of seizure burden and side effect profile attributable to this intervention.

POSTER # 13

FDY-5301: An Innovative Approach to The Treatment of Revascularization Coronary Injury

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BACKGROUND: Percutaneous coronary intervention (PCI) restores coronary blood flow after ST segment elevation myocardial infarction (STEMI) but can result in reperfusion injury in the short-term. FDY-5301 is a sodium iodide-based drug designed to be administered as an intravenous bolus after STEMI, prior to reperfusion with PCI, to reduce the damage of reperfusion injury.
METHODS: Literature was gathered using PubMed, Google Scholar, SciFinder, and PubChem using terms “FDY-5301,” “FDY-5301 Faraday Pharmaceuticals,” “reperfusion injury,” “reactive oxygen species,” “ROS,” “STEMI,” “percutaneous coronary intervention,” “sodium iodide,” “potassium iodide,” “sodium iodide catalysis,” and “breakdown of hydrogen peroxide.” Clinical trial information was gathered using the Australian New Zealand Clinical Trial Registry, ClinicalTrials.gov, and Zoom meeting with Faraday Pharmaceuticals CMO/CSO Dr. Simon Tulloch and CFO Brian Blackman.
RESULTS: Information about STEMI, PCI, reperfusion injury, ROS, hydrogen peroxide breakdown, sodium iodide, and potassium iodide provided background knowledge. Preclinical findings demonstrated the benefits of sodium iodide in reducing reperfusion-induced damage in animal models. Clinical trials demonstrated safety and tolerability in Phase 1 and potential efficacy in Phase 2, showing a possible decrease in infarct size and troponin I levels as well as significant reductions in values representing inflammation, myocardial remodeling, and acute cardiac dysfunction. A larger, Phase 3 study is underway.
CONCLUSIONS/CLINICAL RELEVANCE: FDY-5301 has been shown to be a possible new therapy for the reduction of reperfusion injury-induced damage. It has been shown to be safe, tolerable, and feasible for emergency administration, as well as potentially efficacious in mitigating damage post-infarction. Phase 3 will evaluate the drug in a multicenter study.

POSTER # 14

A Novel Fertility Preserving Surgical Approach to Xanthogranulomatous Oophoritis

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Xanthogranulomatous Oophoritis is an uncommon form of chronic inflammation characterized by rarely found in the female genital tract. When present, it is typically limited to the endometrium. Only a limited number of cases in the ovary have been reported. Due to its resemblance to ovarian malignancy, preoperative diagnosis remains a challenge and must be addressed to avoid unnecessary invasive procedures that can impact fertility for females of reproductive age. We present a case of Xanthogranulomatous Salpingo-Oophoritis in a 22-year-old female which was initially suspicious of a neoplastic process but was identified as infectious after pathological review of specimens collected during an exploratory procedure. Characteristic features such as lipid-filled macrophages, plasma cells, lymphocytes, neutrophils, and multinucleated giant cells helped confirm diagnosis of xanthogranulomatous inflammation. Radical surgical management was then aborted, and instead antibiotic treatment tailored to pan-sensitive *Klebsiella Pneumoniae* was initiated along with percutaneous pelvic drainage. The treatment produced an improvement for the patient and allowed her to undergo a less invasive procedure that allowed for fertility to be conserved. This case emphasized that while oophorectomy is the standard choice of treatment for xanthogranulomatous oophoritis, aggressive antibiotic use and cautious surgical judgment should be implemented to limit invasive surgical intervention. This multimodality approach could allow for fertility preservation and thereby an improvement in quality of life for affected females of reproductive age.

POSTER # 15

I Have a Drinking Problem: Alcohol Use Disorder Post Gastric Weight-Loss Surgery

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Gastric weight loss surgeries (GWLS) are fast becoming a popular and cost-effective treatment for morbid obesity, with proven benefits on complications like hypertension, type 2 diabetes, dyslipidemia, and obstructive sleep apnea. However, a considerable number of patients are developing Alcohol Use Disorder (AUD) with its catastrophic medical and psychosocial complications.

57-year-old female with a past medical history of hypertension, morbid obesity, depression, osteoarthritis, and obstructive sleep apnea for which she had a gastric sleeve surgery seven years prior this admission to the inpatient detoxification unit for severe AUD withdrawal. She admitted to tolerance exhibited by her increasing use. It cost her jobs and relationships with friends and family. She presented with a complaint of "I need to stop drinking". Evaluation revealed anxiety, tremors, alcohol cravings, diaphoresis, and irritability with a CIWA score of 12. Social history revealed use of over a pint of liquor daily with an additional 6-pack of 12oz beer three times a week. Her weight was 123 Lb. ("I was twice my weight before weight loss surgery"), height of 5'4 (BMI 21.1). Vitals: BP was 140/95mmHg and pulse of 108/min. Laboratory results showed AST of 60, ALT of 45 and GGT of 90. Patient was initiated on symptom triggered oral lorazepam detox protocol and transitioned to monthly intramuscular injections of 380 mg Naltrexone. Post discharge was connected to the outpatient clinic and the Alcoholic Anonymous (AA) support group.

More than half of bariatric surgeries performed in the U.S. each year are sleeve gastrectomies. In a prospective study, the 2-year prevalence of AUD for laparoscopic gastric sleeve surgery was found to be 14.4%. GWLS including the sleeve affect the pharmacokinetics and pharmacodynamics of alcohol. There is significant reduction in transit time for alcohol through the stomach, accelerated alcohol absorption so that the effect is almost instant. There is significant reduction in the amount of first-pass oxidative metabolism by the human gastric cells which contain at least two isoenzymes of alcohol dehydrogenase and microsomal ethanol oxidizing system. The newfound body results in increased socializing and frequency of drinking. Furthermore, there is addiction transfer phenomenon in which AUD becomes a new alternative to their past food addiction, hence the necessity of in-depth proactive screening to uncover even at-risk individuals pre surgery, and consolidated efforts to provide long term surveillance for AUD post-surgery to address any arising case with quick optimal treatment hence prevent its often-catastrophic health, relationship, and financial consequences.

POSTER # 16

Dual AAV-Mediated Gene Replacement Therapy Improves the Vestibular Function in a Mouse Model of USH1B

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Background: Usher syndrome is the most common cause of deafness-blindness in the world. Usher syndrome type 1B (USH1B) is caused by mutations in *MYO7A*. Patients with USH1B experience deafness, blindness, and vestibular dysfunction. In this study, we applied dual AAV-mediated gene therapy to a mouse model of USH1B, the shaker-1 (*Myo7a*$^{4626SB/4626SB}$) mouse. The shaker-1 mouse has a nonsense mutation in *Myo7a*. It is profoundly deaf with significant vestibular dysfunction, similar to patients with USH1B.

Methods: Neonatal (P0 to P5) shaker-1 (*Myo7a*$^{4626SB/4626SB}$) mutant mice were used. Due to the ~6.7 kb of the *Myo7a* cDNA, the dual AAV approach was used for gene delivery via the posterior semicircular canal. Auditory brainstem response (ABR) was used to assess auditory function. Vestibular evoked potential (VsEP) and circling behavior recording were used to assess vestibular function. Immunohistochemistry was used to evaluate viral transduction efficiency, sensory hair cell viability, and stereocilia morphology.

Results: The shaker-1 mice are profoundly deaf due to significant stereocilia disorganization and rapidly progressive cochlear hair cell loss. When *Myo7a* cDNA was delivered to shaker-1 inner ears using the dual AAV approach, cochlear hair cell survival was improved. However, stereocilia organization and auditory function were not improved. In the vestibular system, dual AAV-mediated *Myo7a* delivery caused an improvement in stereocilia organization. In addition, the treated shaker-1 mice had improved vestibular function, reflected by reduced circling behavior and improved VsEP thresholds.

Conclusions: Our results showed that dual AAV gene therapy was able to improve the vestibular function in the shaker-1 mutant mice.

POSTER # 17

Protocol Biopsy Post Kidney Transplant: Clinical Application and Efficacy to Detect Allograft Rejection

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BACKGROUND: Kidney transplant rejection is a major cause of graft dysfunction and failure. There is interest in renal allograft protocol biopsies for earlier detection of graft dysfunction or rejection to improve graft survival. We aimed to determine if protocol biopsies performed within 12 months post-transplantation help detect subclinical graft dysfunction or rejection.

METHODS: We performed a retrospective analysis utilizing SUNY Upstate University Hospital data from January 2016 to March 2022 to assess transplant outcomes and biopsies. The study population was divided into 2 subgroups: non-protocol biopsies (NPB) and protocol biopsies (PB) within 12 months post-transplant.

RESULTS: A total of 332 patients were included: 135 (40.6%) in the PB and 197 (59.4%) in the NPB group. There were 8 rejection episodes (4.6%) in the PB and 56 (18.3%) in the NPB group, significantly higher for NPBs (P=0.001). ABMR and TCMR diagnosis was significantly higher in the NPB group (P=0.03 and P=0.03, respectively), with a trend for mix ABMR/TCMR diagnosis (P=0.07). One-year post-rejection, mean GFR was 56.78 mL/min/1.73m^2 in the PB and 49.14 mL/min/1.73m^2 in the NPB group, without significant difference (P=0.11). Patient survival was not significantly higher in the PB group (P=0.42).

CONCLUSION: This study suggests protocol biopsies do not benefit rejection rates, graft survival, or renal function within 12 months post-transplant. Given these results and the risks of protocol biopsies, they should be reserved for patients with high rejection risk. Less invasive tests such as DSA and dd-cfDNA may be more feasible and beneficial for early rejection diagnosis.

POSTER # 18

Inheritance-Specific Dysregulation of Th1 and Th17 Associated Cytokines in Alopecia Areata

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Autoimmune diseases tend to cluster in families, suggesting genetic predisposition to autoimmunity associated with familial background. We have previously reported similarities in gene expression patterns and PTPN22 polymorphisms between alopecia areata (AA) patients and their healthy relatives, but not unrelated healthy controls. However, the spectrum of disease promoting (or preventing) pathways that may be activated in blood relatives of AA patients remains to be defined. Here, we investigated the extent to which cytokines associated with the Th17 pathway are differentially expressed in the blood of patients with AA and its clinical subtypes in comparison to both healthy relatives and unrelated healthy controls. A comprehensive set of Th17-related cytokines was evaluated by ELISA. We found a significant elevation of the Th17 inducer IL-23, the Th17 product IL-17A, and the Th1 hallmark cytokines IFNγ and TNFα in AA patients, regardless of disease subtype, compared to healthy individuals. On further examination, we found that healthy family members grouped together with patients in terms of elevated Th1 and Th17-pathway cytokines in an inheritance-specific manner, distinct from unrelated controls. The elevation of Th17-associated cytokines in healthy controls related to AA patients indicates that Th1 and Th17 dysregulation in AA may be genetically based. Of note, one unrelated control displayed elevated levels of IL-17A and IL-23 similar to those detected in patients. One year after initial blood draw areas of beard hair loss consistent with the diagnosis of AA were reported by this individual, indicating that the elevation in Th17 related cytokines may have predictive value.

POSTER # 19

Post-Artesunate Delayed Hemolysis After Treatment of Malaria in a Traveler Returning from Ghana

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Post-artesunate delayed hemolysis (PADH) is an uncommon reaction to treatment of severe malaria characterized by mass splenic clearing of damaged red blood cells. The relative rarity of this condition and its clinical similarity to other hemolytic processes make diagnosis challenging.

A 35-year-old woman presented to the emergency department with 3 days of cyclic fever (maximum of 102°F) accompanied by myalgia, chills, malaise, and frontal headache with diplopia. She returned from a trip to Ghana two weeks prior to symptom onset for which no malaria prophylaxis was taken. Medical history was remarkable for dengue fever and anemia. Infectious workup revealed infection with *Plasmodium falciparum* with a parasitemia level greater than 9%. The patient was started on artemether/lumefantrine but changed to IV artesunate two days later, lowering parasitemia level to <0.1%. Despite significant reduction of parasitic load, fevers and headaches persisted. Her hospital stay was complicated by the development of MSSA pneumonia, treated with doxycycline. On admission, the patient's hemoglobin level was 13.8g/dL and dropped steadily throughout her hospital course, attributed at the time to ongoing malarial infection. As repeat parasite testing returned negative on hospital day 9, the fevers subsided, and the hemoglobin stabilized. Between days 10 and 11 she experienced a hemoglobin drop from 8.2g/dL to 6.5g/dL in less than 36 hours with a temperature spike to 103.1°F. Repeat parasite tests returned negative twice. Additional blood tests revealed elevated liver enzymes and an LDH level that doubled from 800U/L to 1623U/L with persistent fevers. The patient received a transfusion of packed red blood cells early the morning of day 12 for a hemoglobin level of 6.5g/dL. Hemoglobin levels dropped over the next 24 hours to 5.9g/dL, beginning a cycle of daily transfusions and falling hemoglobin levels that lasted until day 17 and resulted in 6 total pRBC transfusions. During this time, haptoglobin remained below 8mg/dL, LDH steadily rose to 3094U/L, triglycerides to 678mg/dL, and ferritin to 4589ng/mL. Aforementioned lab values were indicative of hemolytic anemia and raised suspicion for HLH. Fevers spontaneously subsided after day 15 and hemoglobin levels stabilized on day 17, after which the patient showed marked improvement in symptoms. Resolution of symptoms without targeted treatment and absence of bicytopenia on CBC shifted focus away from HLH and towards PADH.

This case demonstrates the need for patient monitoring following confirmation of parasite clearance in malaria patients and the ability of drug-induced hemolytic syndromes to mimic other disease processes.

POSTER # 20

Watts HAPPENING: Comparing the Thermal Profile of Holmium:YAG Laser (HL) Lithotripsy at Fixed Power (40W) in an Anatomical Hydrogel Pelvicalyceal System (PCS) Model

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BACKGROUND: Various studies have evaluated temperature profiles during laser lithotripsy. In-vitro settings (glass tubes) usually lack actual stone ablation, thus poorly correlate to clinical practice. *In vivo* models require significant resources and are not easily reproducible. We sought to evaluate the temperature profile of 4 different laser settings at a standardized power (40W) and compare 4 Operator Duty Cycles (ODC) for each setting in a realistic in-vitro setting.

METHODS: In a validated hydrogel model of a human PCS containing a pelvic BegoStone, lithotripsy was completed using a laser fiber via flexible ureteroscope. Temperature was recorded at 4 laser settings (1Jx40Hz, 2Jx20Hz, 0.5Jx80Hz, 0.4Jx100Hz) and at ODCs of 100%, 75%, 50%, and 25%. Statistical analysis was completed with a non-linear regression.

RESULTS: 80 experiments were run. At 100% ODC, a statistically significant difference in mean overall temperatures was found between each 40W setting. Differences in mean temperatures between each 40W setting remained statistically significant at 25%, 50% and 75% ODC with lowest temps generated for 0.4Jx100Hz in all ODCs. Critical temp was not reached for any 0.4Jx100Hz setting or any 50% and 25% ODC iteration. Critical temp was reached for 75% ODCs at 540s, 610s and 700s for 2Jx20Hz, 0.5Jx80Hz and 1Jx40Hz.

CONCLUSIONS/CLINICAL RELEVANCE: Despite standard 40W power settings, temperature profiles differ significantly with variations in energy, frequency and ODC. Finally, the greater the ODC the greater the rise in temperature; indicating that time-off also plays a crucial role in the temperature regulation during laser lithotripsy and preventing thermal injury.

POSTER # 21

Impact of U.S. Health Policy Measures on Live Organ Donation

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INTRODUCTION: In the United States, there are currently 104,679 candidates on the waiting list for organ transplantation. A major contributing factor to this statistic is the current landscape of health policy related to live organ donation: access is limited by several disincentives to becoming an organ donor, and there is an overall lack in state and federal policy aimed at mitigating or eliminating these disincentives. Disincentives include higher insurance rates to individuals who have donated an organ and lack of job-protected leave to undergo transplant surgery. Several key areas of legislation have been identified and are therefore the focus of organizational and stakeholder advocacy efforts.

METHODS: The present research aims to: (1) Analyze trends in organ donation data within the context of relevant existing policy, (2) identify measures that have positively impacted access to organ donation, and (3) discuss the impact that currently-proposed legislation, if enacted, would have on future organ recipients. This will be accomplished using data reports generated from the Organ Procurement and Transplantation Network, state law databases, and collaboration with advocacy organizations such as the American Kidney Fund. To gain understanding of the relevant efforts of the federal government and its agencies, and to gain firsthand education on the procedures of drafting and passing legislation, discussions will be scheduled with members of U.S. Congress and/or their legislative aides.

RESULTS AND DISCUSSIONS: The proposed study will take place during a Congressional Health Policy elective rotation in March 2023, under the supervision of NYITCOM faculty members Bernadette Riley, D.O. and Brian Harper, M.D.

POSTER # 22

Contextualizing The Impact of Pop Culture on Breast Implant Illness and its Medical Relevance

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INTRODUCTION: Despite a lack of data demonstrating causation, there is growing concern over breast implants and systemic illness. This study examines the impact of rising public interest in breast implant illness (BII) and its implications on breast implant removals (BIR).

METHODS: A Google Trends (GT) analysis of each year between 2010 - 2022 was performed globally, and then separately for the United States alone (US), using the search terms “capsular contracture,” “breast implant illness,” and “breast implant(s) removal”. Linear regression was performed to determine significant correlations. Data on BII-related Facebook advocacy groups, relevant pop culture events, numbers of BIR surgeries, and number of BII-related publications were collected and analyzed alongside GT data to determine relevance.

RESULTS: For global GT, there was a significant relationship between "breast implant illness" and "breast implant(s) removal" in 2016 (R^2=0.62, β =0.33, p<0.01), 2020 (R^2=0.53, β =0.23, p=0.01), and 2022 (R^2=0.60, β =0.44, p=0.01). In the US, 2016 (R^2=0.53, β =1.75, p=0.01) 2018 (R^2=0.61, β =1.93, p<0.01) and 2020 (R^2=0.72, β=0.91, p<0.01) were significant. In 2020, "capsular contracture" and "breast implant(s) removal" was significant in the US (R^2=0.58, β=0.4, p=0.01). In 2016, Facebook was the platform for the largest BII advocacy group and in 2020 YouTube was the platform for the first BII documentary and TEDx talk. From 2010 to 2020, PubMed publications containing “ASIA” and “BII” increased 24-fold and ASPS reports on BIR rose 70%.

CONCLUSION: This study suggests that BII is a topic of global concern and has implications on both academic medicine and clinical practice.

POSTER # 23

Paper Tape Improves Scar Aesthetics and Prevents Wound Closure Complications

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Background: There is uncertainty whether postoperative application of paper tape (PT) improves scar aesthetics and reduces wound closure complications. This study aims to review and assess the quality of applicable findings from studies investigating PT's efficacy.

Methods: PubMed and SCOPUS were queried using the search terms "((“paper tape”) AND (wound OR closure OR heal* OR complication OR skin OR prevent* OR scar*))". Articles that were duplicates, basic science, and not clinically relevant were excluded. Level of evidence was assessed using the ASPS Rating Scale for Therapeutic Studies, ranging from I (highest) to V (lowest).

Results: Of 186 publications reviewed, 8 were included. Five studies reported statistically significant positive outcomes on scar aesthetics and wound closure. One study (n=70) found 0% hypertrophic scarring in the PT group compared to 41% in the control group. Two studies (n=300 and n=60) reported reduced skin closure time with PT versus sutures. One study (n=163) demonstrated superior aesthetic outcomes with woven PT over surgical tape. One study (n=47) found silicone sheets produced better, but not clinically meaningful, scar appearance than PT. The remaining three studies (n=42, n=64, and n=4) reported cosmetically satisfactory scarring post-PT. Two studies were rated Level I, 3 Level II, 2 Level IV, and 1 Level V. Heterogeneity in study designs evaluating PT application limit outcome comparison.

Conclusions: The data support PT application for optimization of scar and wound management. Lack of higher levels of evidence, however, suggests the importance of additional randomized controlled trials to rigorously evaluate this promising approach.

POSTER # 24

Coordination of Care in a Medicare Physician-Led Accountable Care Organization Decreases Costs Associated with Postoperative Management of Patients Undergoing Total Hip and Knee Arthroplasties

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BACKGROUND: The Centers for Medicare and Medicaid Services (CMS) has promoted physician-led Accountable Care Organizations (ACOs) to save healthcare costs by providing high-quality, coordinated care without compromising patient outcomes. ACOs can achieve this goal through care coordination. Coordinated patient care allows providers to manage patients' complex medical conditions without the duplication of services, thus, decreasing the total costs of care.
METHODS: CMS payer data was collected for beneficiaries who underwent total hip arthroplasty (THA) or total knee arthroplasty (TKA) procedures for an ACO between 2016 and 2018. Payer data reflected the average costs for all services provided in the postoperative management of patients who underwent THA or TKA procedures. Coordination of care was initiated in 2017 in this ACO. Payment data for 2016 were compared to those in 2017 and 2018. Coordinating care included appropriately using long-term care facilities and closely following up with primary care physicians.
RESULTS: 329 patients underwent THA and TKA in 2016, 356 in 2017, and 379 in 2018. In 2016, the average cost associated with postoperatively managing patients undergoing THA or TKA procedures was $18,440; in 2017, it was $18,037. However, in 2018, the average cost to postoperatively manage these patients decreased to $16,626.
CONCLUSION: Coordinating care in the ACO setting can decrease the costs associated with the postoperative management of patients undergoing THA or TKA procedures. Thus, ACOs may show promise in reducing healthcare costs.
CLINICAL RELEVANCE: With over one million THA and TKA procedures performed each year in the United States, care coordination in the ACO setting represents a critical cost-saving opportunity.

POSTER # 25

Future Docs for Abortion Access: Coalition-Building Lessons from NYC Medical Students

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BACKGROUND: In response to *Roe v. Wade's* overturn, medical students have redoubled their efforts to protect abortion rights, access, and education by partnering with mission-aligned organizations.

METHODS: In June 2022, seven New York City (NYC) chapters of Medical Students for Choice (MSFC) formed MSFC NYC, a novel coalition of local reproductive justice (RJ) advocates focused on protecting patients' rights to have children, not have children, and parent children in safe and healthy communities.

After defining common goals, MSFC NYC launched three principal initiatives in 2022: 1) the *Future Docs for Abortion Access* campaign to fundraise for local and national abortion funds, 2) the *"Accessing Abortion in NYC"* resource guide to provide universal access to robust medical education on abortion, and 3) a grassroots political campaign to establish a reproductive health training fund that will accommodate medical residents traveling to New York state.

RESULTS: *Fundraising:* MSFC NYC raised $20,105 for the Brigid Alliance and the National Network of Abortion Funds from 200+ donors between 8/1/22-9/15/22.
Resource Guide: MSFC NYC published a resource guide through open-access libraries at Columbia University and Mount Sinai School of Medicine. Students shared it with fellow medical students and professionals, and engaged school administrators to share it with alumni, faculty, and national medical educator networks. We distributed the guide to 10,000 MSFC members across 28 countries with guidance on tailoring it to other environments. In its first two weeks of publication, the guide was accessed 1,100+ times (Bit.ly).
Political Action: MSFC NYC authored a petition calling on Governor Hochul (D-NY) to create a New York reproductive health care training fund in her executive budget, gathering 600+ medical student signatures in one month by leveraging our growing network.

CONCLUSIONS: MSFC NYC's innovative multi-institutional partnership empowered students to rapidly and successfully respond to local and national reproductive health needs. Our coalition invited diverse voices into the ideation and execution processes which enhanced our work products and their reach.

In eschewing institutional silos, MSFC NYC established itself as a known entity among local reproductive health organizations, giving medical students necessary representation within the RJ movement.

Ongoing efforts to expand our membership base and strengthen our partnerships with local reproductive health organizations are needed.

IMPLICATIONS: Medical students can derive valuable coalition-building lessons from MSFC NYC and reproduce our student-led advocacy model to advance social justice.

POSTER # 26

Hemorrhagic Ovarian Cysts Following Hormonal IUD Insertion

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BACKGROUND: Hemorrhagic ovarian cysts occur when blood vessels hemorrhage into an unruptured follicle or corpus luteum. Small, self-limiting ovarian cysts are associated with levonorgestrel intrauterine system (LNG-IUS) use [1]. The incidence of cysts >3 cm has been reported as 17.5-21.5% [2]. Risk of hemorrhagic ovarian cysts with LNG-IUS use has been recorded, however studies thus far have been limited in number [3]. We present 3 patients who demonstrated hemorrhagic ovarian cysts on transvaginal ultrasound (TVU) after LNG-IUS insertion with subsequent spontaneous resolution.

CASE: HT is a 31-year-old, white female, P0, with a past medical history of migraines, IBS, and mast cell activation syndrome, who presented to the gynecology clinic with abnormal uterine bleeding. A Mirena® IUD was inserted on 9/28/2022 under TVU guidance without ovarian cysts. Sonography on 10/31/22 demonstrated a hemorrhagic left ovarian cyst of 3.4 cm in length. Follow-up sonography on 1/9/2023 revealed complete resolution of the cyst.

KK is a 50-year-old, white female, P2 with no past medical history, who presented to the gynecology clinic with abnormal uterine bleeding. A Mirena® IUD was inserted on 5/28/2020 under TVU guidance without ovarian cysts. Sonography on 12/3/2020 demonstrated a hemorrhagic left ovarian cyst of 8.0 cm in length. Follow-up sonography on 7/23/2021 showed shrinkage of the cyst to 6.3 cm. The cyst continued to shrink to 3.6 cm on 8/20/2021 sonography and resolved on 10/1/2021. Another hemorrhagic ovarian cyst appeared on 10/17/2022 at 2 cm in length and resolved by December of 2022.
RN is a 21-year-old Asian female, P0 with a history of dysmenorrhea, hypothyroidism, and anxiety. A Mirena® IUD was inserted on 7/28/2022 under TVU guidance without ovarian cysts. Sonography on 9/1/2022 demonstrated a hemorrhagic left ovarian cyst of 5.0 cm in length. Follow-up sonography on 10/13/2022 revealed complete resolution of the cyst.

DISCUSSION:
These cases highlight a potential complication associated with LNG-IUS use. It has been previously demonstrated that LNG-IUD's can alter the development and rupture of follicles [4]. Levonorgestrel may also prevent involution of the corpus luteum, leading to luteal cysts [5]. Recognition of the potential risk of hemorrhagic ovarian cysts and their management is crucial to prevent complications. Most hemorrhagic ovarian cysts resolve spontaneously without surgical intervention, as in the above cases. However, when patients become symptomatic with worsened abdominal pain, then potential complications such as intra-abdominal hemorrhage and ovarian torsion either from ruptured cysts or enlargement of unruptured cysts warrant surgical management.

POSTER # 27

A Bibliometric Analysis of Highly-Cited Transoral Robotic Surgery Studies

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BACKGROUND: Transoral robotic surgery (TORS) is a minimally invasive form of surgery classically used to remove head and neck cancers that has gained popularity in the last decade. More recently, surgeons have looked to this technique to treat obstructive sleep apnea (OSA), specifically when caused by lingual tonsillar hypertrophy. As TORS applications and research broadens, we conducted a bibliometric analysis identifying characteristics of the 50 most cited articles to analyze the seminal works that shaped the field.

METHODS: We queried the Web of Science database for studies relating to TORS and identified 1647 pertinent studies. Of these, the top 50 most cited articles were analyzed based on a number of characteristics such as journal impact factor, citations, country of publication, and topic of research.

RESULTS: The fifty most cited articles totaled 7352 citations (mean 147 citations). Articles were published in journals with impact factors ranging from 0.914 to 65.038 (mean=10.787). The majority of studies were published between 2010-2020 (n=40, 80%). Most articles were published by groups in the USA (n=36, 72%), followed by Canada (n=6, 12%), and other countries (n=8, 16%). The majority of the most cited studies were full-text articles (n=36, 72%), and the rest were reviews (n=14, 28%). Interestingly, only 30 studies were classified as Otolaryngology research, with the rest ranging from Surgery to Oncology.

CONCLUSIONS: Most articles related to clinical application of TORS, specifically in the realm of Otolaryngology. This study demonstrates that there are also highly cited TORS articles in areas beyond Otolaryngology.

POSTER # 28

Social Prescribing: Recommending Community Engagement to Patients in Order to Enhance Treatments and Outcomes in Medical Care

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BACKGROUND: In the UK, there is a new well-funded NHS movement called "social prescribing" (SP), which has gained international traction. Patients are encouraged to participate in social interventions including helping behaviors, community, and group activities to improve their social situation and wellbeing. This scoping review investigates the physical and mental health benefits of social prescribing programs for socially isolated individuals, to encourage their implementation in clinical settings across US.
METHODS: Literature was collected from four databases, screened, and reviewed, yielding 54 articles. Data analysis was done using Rayyan software and Excel.
RESULTS: Four components of SP for the socially isolated were commonly discussed in the articles: a) patient experience, b) patient's health and wellbeing outcomes, c) physician experience, d) healthcare usage outcomes. Quantitative data showed 60% less social isolation, 26% increased mental wellbeing, 70% reduced loneliness, and 70% reduction in health service usage after engagement in group activities. Physical outcomes included reduced weight, BMI, cholesterol, blood pressure, anxiety, and depression. Economically, SP decreased high physician burnout and stress by reducing workload while meeting patients' needs.
CONCLUSION: SP programs significantly improve mental and physical health, and thus lives, of individuals who would otherwise suffer without companionship or meaning. Participants are empowered to take their health into their own hands. The US healthcare system is limited by lack of staff, resources, and capacity to effectively engage with community groups for patients with mental health problems, contributing to physician burnout. SP link workers may bridge the gap between doctors and the community, increase morale and physician retention.

Keywords
social prescribing, social isolation, wellbeing, physician burnout, link workers, healthcare outcomes

Statements and Declarations
Statement: We are building on Dr. Post's 2005 article in your journal, *Altruism and Health*, which has a citation index of 1200 plus. The Social Prescribing movement draws heavily on the science that unfolded from that article.
Competing Interests and Funding: We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere. We have no conflicts of interest to disclose. We have no financial or non-financial interests that are directly or indirectly related to the work submitted for publication.

POSTER # 29

Assessing Attitudes Towards Telehealth in an Underserved, Uninsured Patient Population

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Telehealth has the untapped potential to improve healthcare for underserved communities. However, the COVID-19 pandemic revealed a striking disparity in which patient demographics face barriers to using this modality. Without addressing them, telehealth will remain underutilized and healthcare inequities will persist in these communities. This pilot study was conducted at Stony Brook HOME, Renaissance School of Medicine's student-run free clinic in Suffolk County, NY. It aims to investigate barriers to telehealth in this underserved, uninsured population.

Surveys were administered bimonthly (n=56) in English (48.2%) or Spanish (51.8%). Most patients were Hispanic/Latino (58.9%), female (53.6%), and 40-60 years old (57.1%). In general, there was both a lack of telehealth awareness (28.6%) and utilization (16.1%). Most Spanish-speakers came from zip codes with high social vulnerability indices. English-speakers were more likely to have reliable internet access (1.5x), own a smartphone (1.7x), computer (3.9x) and tablet (5.9x). English-speakers were also more comfortable using smartphones or tablets than Spanish-speakers ($\bar{x}$=4.4 vs. 3.3, Likert scale). Both groups, however, believed that telehealth was not an appropriate equivalent to an in-person visit ($\bar{x}$=2.7 vs. 2.5, Likert scale).

Results demonstrate a lack of telehealth awareness, utilization and buy-in for its ability to replace in-person visits. This was compounded by barriers disproportionately felt by Spanish-speakers, including smartphone ownership, reliable internet access and technological comfort. Addressing telehealth barriers through survey-directed interventions may improve continuity of care and patient outcomes.

POSTER # 30

Standardizing Obesity Patient Education at a Community Hospital Pediatric Clinic: A Quality Improvement Project

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BACKGROUND: The prevalence of pediatric obesity in the United States has increased over the past few decades. Until now, our pediatric clinic has not had a standardized approach to patient education regarding obesity and lifestyle recommendations.

OBJECTIVE: To assess changes in patient knowledge and metabolic health measures before and after implementing a new standardized educational tool during pediatric obesity visits.

DESIGN/METHODS: We created a flip chart containing current guidelines on obesity and lifestyle recommendations. Consented patients with obesity underwent an educational session using the flipchart during a routine visit. Pre-test and post-test assessments were completed by either the patient or parent, and BMI and HbA1c data were recorded. Post-test assessments, BMI, and HbA1c were repeated at the three-month follow-up visit. Paired sample *t*-tests were run to compare scores across time. Paired-sample *t*-tests were also run to compare BMI and HbA1c across time.

RESULTS: Post-assessment scores were significantly higher than pre-assessment scores (t=-11.22, p<0.001). However, the 3-month reassessment scores were significantly lower than the post-assessment scores (t=3.44, p=0.003). HbA1c levels were higher at the follow-up visit than at baseline (t=-2.85, p=0.011). There was no significant difference in BMI levels over time.

CONCLUSION: Implementation of a standardized tool for obesity education was associated with higher post-test assessment scores after the educational session. However, this increase in scores was not maintained. In addition, the educational session was not associated with improved BMI or HbA1c levels. Further modifications will be needed for sustained improvement in knowledge and clinical health.

POSTER # 31

Ultrasound Findings in Acute Appendicitis and Body Mass Index in Children and Adolescents in Two Urban Community Hospitals

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BACKGROUND: Acute appendicitis (AA) is a common cause of acute abdominal pain in pediatrics. In adults, inverse relationship between quality of ultrasound (US) and BMI has been reported. The current study examined the relationship between US findings and illness severity with BMI in pediatrics with AA.

METHODS: Pediatric patients with AA and having US of appendix were included. Demographics, clinical findings, BMI, imaging studies and pathology were extracted from EHR. Alvarado score (AS) used in diagnosis of AA, 1-6 is least likely and 7-10 more likely to require surgery. US findings were categorized as visualized or non-visualized, pathology as inflamed, gangrenous or perforated. Bivariate analyses were conducted, $p<0.05$ was considered significant.

RESULTS: Of 203 patients, 62% were of male gender, mean age 10.6±3.9 years, 67% Hispanic, 28% obese, less than half (46%) non-visualized appendix, 53% acutely inflamed, 32% perforated. Visualization was not significantly related to BMI ($p=0.59$), AS ($p=0.77$), nor pathology ($p=0.40$). Visualized were more likely to have US tenderness and appendicolith ($p<0.001$). Non-visualized were more likely to have abscess ($p=0.02$). Among those with AS of 1-6, 31% of obese had non-visualization compared to 18% visualized.

CONCLUSIONS: Non-visualization was not correlated with AS, BMI and pathology. Tenderness at time of US increased likelihood of visualization.

POSTER # 32

Peanut Allergy and Anaphylaxis in Children and Adolescents in an Urban Multiethnic Community Hospital

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BACKGROUND: Prevalence of peanut allergy (PA), food allergy (FA) and anaphylaxis (ANA) has been increasing in the USA. Studies have shown that Hispanic and African American children are more likely to have FA and FA-ANA. The purpose of the study is to characterize ANA due to PA and FA in an ethnically diverse pediatric population

METHODS: Patients aged 1-18 years with PA were reviewed for demographics, FA, allergy screen, presenting symptoms, age of diagnosis, past medical history, ANA, body mass index (BMI), family history (FH) and medications. Patients were grouped into no ANA (nANA) and ANA for comparisons. Data were analyzed using SPSS, $p<0.05$ was considered significant.

RESULTS: Of 128 patients with PA, 56% were male, 60% Hispanic, 18% Asian and 15% African-American. PA was confirmed by ImmunoCap test in 108 (85%) at mean age of 5.1±4.1 years. There were no significant differences between nANA (n=69, 54%) and ANA (n=59, 46%) groups for FH of asthma, personal history of asthma or FH of eczema. However, significant differences were found for FH of FA (0 vs 8%, $p=0.02$), higher average BMI (19.7±5.2 kg/m^2 vs 21.9±5.2 kg/m^2, $p=0.04$), increased use of oral steroids (20% vs 75%, $p<0.001$), dyspnea (4% vs 49%, $p<0.001$), nausea/emesis (9% vs 42%, $p<0.001$) and edema (7% vs 66%, $p<0.001$).

CONCLUSIONS: In patients with PA, being Hispanic, male, having higher BMI, and being on steroids are risk factors for ANA, as is a FH of FA.

POSTER # 33

Reducing Excessive Variability in Infant Sepsis Evaluation

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BACKGROUND: Changing bacterial causes of fever in infants warranted updated clinical approaches to avoid excessive evaluations, hospitalizations and antibiotic treatment. In 2021, the American Academy of Pediatrics published new guidelines on well-appearing febrile infant evaluation, initial disposition, empiric antibiotic therapy and hospital discharge. We aimed to improve the evidence-based evaluation and management of well-appearing infants presenting with fever to our community hospital over 12 months.

METHODS: SETTINGS: Emergency Department(ED) and inpatient unit
Sample Size: Baseline(n=9), action period(12 PDCA cycles, n=17)

1. Application and acceptance to national quality improvement (QI) collaborative
2. Identification and QI training of multi-disciplinary team leaders.
3. Retrospective 12-month chart review
4. Toolkit implementation: best practice education, individual provider feedback, guideline-specific tools
5. Monthly data collection and PDCA sessions

- Primary measures (compliance goal): appropriate CSF collection(90%), disposition from ED(90%), receipt of antibiotics(90%), hospital discharge(90%)
- Secondary measures: appropriate follow-up(75%), patient engagement(75%), oral antibiotic use(75%)
- Balancing measures: appropriate evaluation, ED revisits, readmissions, delayed diagnosis of invasive bacterial infections

RESULTS: Baseline data showed quality gaps for all primary measures. After 12 PDCA cycles, improved compliance was noted in all primary measures: appropriate CSF collection(80 to 100%), disposition from the ED(33% to 60%), receipt of antibiotics(33% to 80%), and time until discharge from hospital(0% to 30%). There was no increase in ED revisits, readmissions or delayed diagnosis of invasive bacterial infections.

CONCLUSIONS: Participation in a national QI collaborative showed improvement in health care value provided, through improved compliance with evidence-based guidelines, and decreased utilization of unnecessary tests, therapies and resources.

POSTER # 34

Inpatient Rheumatology Consultation Prompted by Positive Autoantibodies in Patients Receiving IVIG Therapy: A Case Series and Literature Review

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ABSTRACT:
Intravenous immunoglobulin (IVIG) is a therapeutic preparation extracted from multiple human plasma donations. It is used in the treatment of multiple conditions. Autoimmune testing, including antinuclear antibody (ANA), is often initiated in these conditions but is only obtained after initiation of IVIG treatment. This can present a diagnostic dilemma in hospitalized patients and may trigger a rheumatology consultation. We performed a retrospective chart review of rheumatology consultations between June 2018 and June 2020 at our academic tertiary care hospital and identified 5 patients who met our inclusion criteria. We performed a pertinent literature review using PubMed and Google Scholar from inception to October 2022. All five patients had positive ANA and other autoantibodies detected in their serum after they received IVIG for conditions including Guillain-Barre syndrome, immune thrombocytopenia, and autoimmune hemolytic anemia. After evaluation by the rheumatology service none of the patients met the criteria for a connective tissue disease. One patient had repeat tests one month later which reported a negative ANA. Literature review identified a total of 58 patients from case reports and case series who had autoimmune tests including an ANA done after receiving IVIG. Several of these patients tested positive for ANA and other antibodies. Studies assessing specific IVIG products had detected multiple autoantibodies in the donor pool. Therefore, if an autoantibody such as ANA is positive a rheumatology consultation may be requested. Whether such positive antibodies are of clinicopathological significance is determined by clinical judgement and time. Clinicians should be aware of this diagnostic dilemma.

POSTER # 35

Impact of Age, Geneder, Comorbidities, and Vaccination Status on LONG COVID in Brooklyn Community

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INTRODUCTION: A significant number of patients have been affected by COVID-19. Little is known about the severity, expected clinical outcome, and duration of post-COVID symptoms. At our institution, we care for patients who have post-COVID symptoms.

METHODS: We conducted a retrospective chart review of patients at Maimonides Medical Center Adult Post-COVID clinics from November 2020 to June 2022. Patients 18 years or older, with confirmed or suspected COVID-19, whose symptoms persisted beyond four weeks were included. We evaluated the comorbidities, spectrum, and duration of these symptoms. A mean average of symptoms (MAOS) and hospitalization rate (HR) were measured.

RESULTS: Of 173 patients, 49.7% (86) were white, 60.1% (104) were female, 42.2% (73) were 50-69 years old and 80.9% (140) were unvaccinated at the time of COVID-19 infection. The MAOS was 4.37 and the HR was 24.9%. Twenty-five long COVID symptoms were evaluated, and the most common were malaise, dyspnea, anxiety, arthralgia/myalgia, and headache. 50 to 59-year-olds reported the highest MAOS (5.33). Asian patients reported the lowest MAOS (3.29). Patients with ≥ 2 comorbidities (22.5%) had a MAOS of 4.56 and HR of 46.2%. Minority patients and patients with obesity had higher HRs (35.1% and 35.2% respectively). 60.7% (105) of patients reported symptoms greater than 3 months and 24.3% (42) reported symptoms for over a year.

CONCLUSION: Our study showed unvaccinated, 50 to 69 years old, white, and females were mostly affected. Patients with multiple comorbidities and 50-59 years old have higher MAOS, and 24% of patients had symptoms for over a year.

POSTER # 36

Evaluating the Efficacy and Safety of Insulin Glargine as a Basal Insulin Regimen in Patients with Gestational Diabetes

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BACKGROUND: Although intermediate-acting insulin has been the mainstay medical treatment of poorly controlled gestational diabetes (GDM), long-acting insulin analogs, like glargine, have become increasingly common. Most observational studies find that glargine has no significant differences in adverse outcomes when compared to intermediate acting insulin. However, these studies are typically small or feature mixed study-populations (e.g., combining gestational and pregestational diabetes). The purpose of this study is to further evaluate the use of glargine in the management of GDM.

METHODS: This is a retrospective cohort study of singleton pregnancies affected by medication managed GDM (GDMA2) who received care at a single institution from 2018 to 2020. Patients treated with a glargine-only regimen were compared to a composite of all medications used for GDM including oral agents and other long, intermediate, and short-acting insulin regimens. The primary outcome was maternal hypoglycemia. Secondary outcomes included both maternal and neonatal complications.

RESULTS: A total of 148 patients were identified. 85 were in the glargine-only group and 63 in the composite medication group. There was no difference in hypoglycemia with glargine when compared to other antihyperglycemics (OR=0.93, 95% CI [0.45, 1.92], P=0.83). There were also no significant differences in large-for-gestational-age (P=0.73), shoulder dystocia (P=0.74), postpartum hemorrhage (P=0.17), chorioamnionitis (P=0.44), operative delivery (P=0.34) and NICU admission (0.31).

CONCLUSIONS: There was no difference in maternal hypoglycemia and other pregnancy-related complications with a glargine-only regimen versus other forms of medical management. Said findings are consistent with existing literature on the non-inferiority of glargine in comparison to other antihyperglycemics.

POSTER # 37

Factors Associated with Heart Failure Readmissions at a Suburban Community Hospital

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BACKGROUND: Heart failure is among the leading causes of hospitalization and readmission in the US. Research has focused to identify key factors associated with increased readmission rates in an effort to improve healthcare quality and reduce costs.

METHODS: A retrospective, observational, single-center study was performed at Mount Sinai South Nassau, a community hospital in Oceanside, NY, USA. Thirty patients with heart failure, readmitted from January to July 2022 were included. Demographics, medical characteristics, lab values, and medications were collected. The primary outcome was to identify the factors contributing to readmission. A p-value <0.05 was considered statistically significant, and STATA version 15 software was used for analysis.

RESULTS: Readmission rates were higher among Caucasians vs African Americans (53.3% vs 26.7%), females (53.3% vs 46.7%) and patients with hypertension (90%), anemia (86.2%), and coronary artery disease (73%). Dyspnea (93.3%) and edema (43.3%) were the most common symptoms. Reduced LVEF was associated with higher readmissions (56.7% vs 43.3%). The most prescribed medications included ACE inhibitors, ARBs, angiotensin receptor/neprilysin inhibitor (ARNi), iron, statins, and diuretics. Among females, readmission SBP was lower (p <0.001, OR = 0.92, 95%CI: 0.85-1.00) and LVEF was higher (p <0.001, OR = 1.18, 95%CI: 1.04 – 1.35).

CONCLUSION/CLINICAL RELEVANCE: SBP and LVEF were main factors associated with readmission in females who possessed higher rates of readmission due to heart failure symptoms. Targeting common comorbidities in addition to improved recognition of symptoms could help to reduce readmission rates. Despite good medication adherence, patients could have benefited from an optimized heart failure regimen.

POSTER # 38

It Is Possible to Address Disparities Regarding Race and Sex In Advance Care Planning: A Performance Improvement (PI) Project

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BACKGROUND: **A**dvance care planning (ACP) addresses patients' decisions for end-of-life care and ensures they are respected. We analyzed and addressed potential disparities and barriers with regards to race and sex in ACP through a PI project

METHODS: PI project conducted from September to November 2022 in 3 long-term care (LTC) facilities and outpatient geriatrics clinic (C) in the Bronx. Data collected using a tool; analysis performed with SPSS software.

RESULTS: 291 participants, 274 analyzed (C 97, LTC 177); mean age 78.9 years (C 77.8; LTC 80.0); average 4.1 comorbidities (C: 3.5; LTC: 4.8). The majority of individuals were African-Americans (106, 38.6%) followed by Hispanics (82, 29.9%) and Whites (69, 25.1%) with a higher rate of females (168, 61.3%). Advance directives were present in 224 cases (81.7%); and revisited / addressed in 265 (96.7%) and implemented in one third of cases, almost equally in Whites, Hispanics and African Americans.

The main reasons to decline ACP were discomfort with topic, religious/cultural beliefs, advanced dementia and dependence on families or doctor to make decisions.

CONCLUSIONS:

- Nonsignificant disparities exist among racial and sex groups regarding ADs implementation in outpatient and long-term care settings.
- We observed that most disparities and barriers to ACP can be overcome through a patient-centered approach addressing sociocultural characteristics.

POSTER # 39

The Psychological Construct of Malignant Self-Regard and its Relation to Self-Reported Perceptions of Social Support

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BACKGROUND: Malignant self-regard (MSR) is a dimension characterized by relating to the self in negative ways. High scores are indicative of self-defeating tendencies, harshly self-critical, set for themselves unrealistically high expectations, preoccupation with guilt and shame, and denial of approval. MSR is conceptually related to depressive personality, masochistic/self-defeating personality and vulnerable narcissism. We hypothesized that people high on MSR would report less social support from others in general than people low on MSR. This was exploratory as no research we were aware of had investigated this specifically.

METHODS: 186 patients consented and completed a packet of self-reports who were being treated at a private cardiology clinic that is a teaching affiliate of neighboring hospital. Participants average age was 66.2, 55.4% were male, 85.5% were Caucasian, 6.5% Hispanic, 2.2% African American, 2.2% Asian, and 0.5% "Other." The study packet included the Malignant Self-Regard-Short Form and the Multidimensional Scale of Perceived Social Support.

RESULTS: Pearson product moment correlations between MSR-SF and the MSPSS showed malignant self-regard was negatively correlated to the MSPSS family support scale ($r = -.21$, $p = 0.01$), MSPSS friends support scale ($r = -.21$, $p = 0.01$), and MSPSS total score ($r = -.21$, $p = 0.01$) but not the MSPSS significant others scale ($r = -.10$, ns).

CONCLUSION: We found that people high on MSR did not report support from others in general. This may be because they feel they are not worthy of others' support and may in fact undermine their ability to ask and receive others' support.

POSTER # 40

Cardiomyopathy and Chagas Disease

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INTRODUCTION: Trypanosoma cruzi is a protozoan parasite transmitted by the triatomine bug, which can cause life threatening arrhythmias and cardiomyopathy. We present a rare case of chronic chagas cardiomyopathy (CCC) in a Latin American patient.

CASE REPORT: A 59-year-old male immigrant from El Salvador was brought into the hospital for acute onset chest pain. Upon arrival, the patient was found to have sustained monomorphic ventricular tachycardia and was given amiodarone for arrhythmia suppression. Initial ECG showed a right bundle branch block with a left anterior fascicular block. Troponins were elevated to 0.26 ng/mL (0.00-0.06ng/mL). Transthoracic echocardiogram showed decreased left ventricular ejection fraction of 35% with moderately decreased global left ventricular systolic function and multiple left ventricular regional wall motion abnormalities. Cardiac catheterization showed non-obstructive coronary artery disease. Given our patient's endemic area of origin, additional testing for chaga's disease was performed which was positive with Trypanosoma cruzi IgG antibodies= 3.9 (negative <1). This confirmed chronic chagas cardiomyopathy (CCC) since all other causes were ruled out. Our patient received an implantable cardioverter-defibrillator (AICD) and was recommended to follow up with a heart failure specialist for close monitoring.

DISCUSSION: CCC usually presents 15-20 years after initial infection and 20-30% of these patients clinically present with heart failure, atrioventricular (AV) block, stroke and in worse case scenarios life threatening arrhythmias leading to sudden cardiac arrest. Our patient was in the determinate phase of CCC and had a high Rassi score of at least 13 indicating a 10-year mortality of nearly 85%. We therefore emphasize the importance of timely management with AICD in suitable patients to prevent sudden cardiac death from life threatening arrhythmias. Additionally, we recommend timely initiation of guideline mediated treatment for heart failure and close monitoring with advanced heart failure specialists for worsening signs of heart failure.

POSTER # 41

Delayed Detection and Presentation of Ventricular Septal Defect after One Year of ST-Elevation Myocardial Infarction (STEMI): Do We Need More Early Follow-Up Echocardiography After Myocardial Infarctions?

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INTRODUCTION: Ventricular septal defect (VSD) is one of the rare fatal complications of myocardial infarction (MI) seen in 1-2% of the cases, usually within a week. Here, we present a rare case of a middle-aged female with delayed detection of VSD one year after a MI.

CASE PRESENTATION: A 43-year-old female presented with left-sided chest pain, dyspnea, and worsening edema. One year prior, she had inferior wall STEMI with drug-eluting stent placement to the proximal right coronary artery, right posterior descending artery, and mid circumflex. Transthoracic echocardiography (TTE) had showed ejection fraction of 50%-55%, with apical hypokinesis. On this admission, she was tachycardic and tachypneic with normal blood pressure. The physical exam was remarkable for chest crackles, systolic murmur and 3+ pitting edema of lower extremities. Labs showed high BNP and elevated high-sensitivity troponin. EKG revealed t-wave inversions in III, aVF, V1 with flattening in V2-V6, Q waves in leads III and aVF, and premature ventricular complexes. Chest X-ray showed prominent vessels. She was admitted with aspirin, clopidogrel, metoprolol, heparin drip, and IV diuretics for heart failure exacerbation and NSTEMI. TTE revealed a 50-55% ejection fraction with the mildly dilated right ventricle with moderately reduced systolic function and distal ventricular septum with a probable defect. Transesophageal echocardiogram (TEE) confirmed a 0.7 cm defect in the mid-septum with a septal aneurysm confirming the presence of acquired VSD. Coronary angiography (CA) was remarkable for mild diffuse hypokinesis, and moderate left to right shunt through VSD with 50% left anterior descending stenosis, 70% ostial ramus intermedius lesion, and previous patent stents. Clinically, her dyspnea and edema improved partially with medical management and eventually, the patient had VSD repaired.

DISCUSSION: Upon review, a subtle VSD was missed on TTE and CA 1 year ago. She also missed a follow-up. This defect was detected one year later confirmed with TEE, which proved more sensitive. Diastolic shunt reversal signs were seen in TEE but without complete reversal. We wanted to demonstrate a rare presentation of chronic VSD in a patient after MI, which often leads to acute cardiogenic shock with fatal complications when presented as acute complications after MI. However, we rarely see it happening over a year, with a gradually progressive heart failure. This case highlights how crucial it is for regular but early than standard care follow-up of echo after myocardial infarctions and to be vigilant on the possibility of this late acquired VSD.

POSTER # 42

Atypical Presentation Mimicking Infective Endocarditis: Incidental Cardiac Papillary Fibroelastoma with False Positive Commensal Blood Cultures.

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BACKGROUND: Papillary fibroelastomas (PFE) are extremely rare benign cardiac neoplasms and the most common primary tumors of the heart valves. As many other tumor-like lesions of the heart, PFE carry a high risk for cardiac and neurological complications. Close monitoring and prompt therapeutic interventions are essential to prevent potential embolic events. Here, we report a case in which a PFE was diagnosed in a patient with positive blood cultures suspicious for infective endocarditis (IE).

CASE: A 79-year-old male with medical history of essential hypertension, dyslipidemia, anxiety, chronic pain and vocal cord cancer presented to the emergency department for further evaluation of suspected IE. Patient had recently undergone laser resection of vocal cord cancer. On a subsequent follow up appointment with his cardiologist, a new systolic murmur was audible, a “vegetation-like” lesion on the mitral valve on transthoracic echocardiogram (TTE) was seen, and blood cultures with Gram + cocci in clusters reported within 24 hrs. Despite no fever, the clinical suspicion for IE in the setting of recent vocal cord procedure, prompted hospital admission for empiric treatment with IV Vancomycin and further evaluation. Repeated TTE showed a definite spherical, solid vegetation on the tip of the anterior leaflet of the mitral valve, suspicious for valvular vegetation. Further imaging with transesophageal echocardiogram confirmed the lesion to be a 1.2 x 1.4 echogenic mass attached to posterior mitral leaflet that was moving into left ventricle, consistent with PFE. Repeated blood cultures, prior to empiric antibiotic initiation, remained negative at 5 days and antibiotics were discontinued. The patient denied inpatient surgical intervention and wished to complete vocal cancer treatment first. Due to potential risk of tumor embolization, the patient was discharged home with prompt outpatient follow up for surgical resection of the PFE.

DISCUSSION/CONCLUSIONS: Most cases of PFE are incidentally diagnosed in asymptomatic patients, but some can present with a variety of symptoms including but not limited to cerebrovascular accidents. Among those patients presenting with symptoms, mostly stroke-like, only a few cases have been reported in which a diagnosis of PFE is made during patient’s work up for suspected IE. This case report provides support that cardiac PFE's should be considered in the differential diagnosis in a patient with a strong history suspected for IE. Although anticoagulation and close monitoring are commonly the choice of medical treatment for asymptomatic patients, we support that surgical resection should perhaps be considered with the goal of preventing embolic and neurological complications.

POSTER # 43

Stress Cardiomyopathy Secondary to Albuterol Use

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A 59-year-old woman presented with acute-onset SOB over two hours, associated with diffuse wheezing not eliminated by use of her albuterol inhaler. 911 was called and her oxygen saturation was 68% on a NRB mask. She denied any associated chest pain. She had a medical history of depression, hypothyroidism, and asthma diagnosed at age 50 controlled with fluticasone-vilanterol once daily and albuterol as needed. Upon ED arrival, BiPAP was initiated. On exam, she was in severe distress and lethargic. She was afebrile, with BP = 93/60 mmHg, P = 138 bpm and RR = 36 bpm with shallow respirations and accessory muscle use. Coarse breath sounds and prolonged expiratory wheezes were bilaterally audible. Labs revealed a WBC count of 12.9 k/µ (ULN < 10.5 k/µ) and hs-troponin of 150 ng/L (ULN < 14 ng/L). ABG: pH = 7.07, pCO2 = 79 mmHg, HCO3 = 22.9, and PaO2 = 97 mmHg, with O2 saturation 97.8. CXR depicted bilateral ill-defined consolidations suggestive of multifocal pneumonia. EKG showed sinus tachycardia with nonspecific ST and T wave changes, T wave inversion in the lateral leads, and prolonged QTc of 587ms (ULN < 460 ms). Initial management for asthma exacerbation secondary to multifocal pneumonia with hypoxemic and hypercapnic respiratory failure included dexamethasone, magnesium sulfate, levofloxacin, vancomycin and ipratropium-albuterol. The SOB resolved with BiPAP treatment, and follow-up ABG after 2.5 hours confirmed resolution of hypercapnia. However, the troponin rose from 150 ng/L to 789 ng/L, and pro-BNP increased from 38 pg/mL to 1018 pg/mL (ULN < 125 pg/mL). Bedside TTE demonstrated severely reduced LV function with preserved basal segments. Urgent left heart catheterization with ventriculogram for NSTEMI evaluation revealed patency of all coronary arteries, LVEF of 10-15%, and LVEDP of 25-30 mmHg. The ventriculogram demonstrated preserved basal function, mid-ventricular akinesia, and apical hypokinesia. She was promptly started on GDMT. A follow-up contrast echocardiogram performed 17 hours post-catheterization showed significant improvement in the LVEF (40-45%) and her clinical symptoms dramatically improved. She was discharged on metoprolol, aspirin, losartan, dapagliflozin, and furosemide. Ten days following discharge the patient was feeling well and planned to repeat a TTE 3 months later.

CLINICAL RELEVANCE: We present a case of stress cardiomyopathy likely induced by excessive beta-2 agonist stimulation. We believe our case adds to the sparse existing reports of this complication and should serve as a cautionary consideration when using adrenergic agents in asthma.

POSTER # 44

Acute Heart Failure Following Valve Replacement in Congenitally Corrected Transposition of the Great Arteries (ccTGA)

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A 50-year-old female presented to the ED with 3-days of progressive dyspnea at rest, and orthopnea. She has a known history of congenital transposition of the great arteries diagnosed in her thirties and had undergone mechanical tricuspid valve replacement with biventricular epicardial lead placement due to worsening regurgitation just three months prior to the ED visit. Transesophageal echocardiogram done two months prior to surgery showed a right ventricular ejection fraction of 42% with moderate tricuspid regurgitation. Two weeks following her surgical approach valve replacement she developed dyspnea at rest and was admitted for acute decompensated heart failure and non-sustained runs of ventricular tachycardia which was resolved with administration of amiodarone. During this episode in EMS transport, she had episodic atrial flutter with spontaneous conversion back to sinus rhythm. Her arrival vitals were significant for tachypnea only. Examination yielded a loud holosystolic murmur at the left parasternal border with associated crackles in bilateral lung bases. Jugular venous distension, pulses paradoxis, or hepatojugular reflux was not appreciated. EKG yielded normal sinus rhythm, an old left bundle branch block and left atrial enlargement. A Chest XR was significant for pulmonary vascular congestion, small bilateral pleural effusions, and cardiomegaly. High sensitivity troponin was 22ng/L without rise, and proBNP of 23,517 pg/mL. Prompt intravenous furosemide was started with adequate physiologic response. Guideline Directed Medical Therapy was discontinued inpatient. Transthoracic echocardiogram showed a severely dilated right ventricle with a right ventricular ejection fraction of 17%.
Following discharge, the patient was classified as United Network for Organ Sharing 4, and eventually received a heart transplant in 2022.
Congenital corrected transposition of the great arteries (ccTGA) is rare and is 1% of all congenital heart disease. (1) Described as atrioventricular disconcordance, it is associated with at least 1 other anomaly mainly being ventricular septal defect. Isolated ccTGA are typically asymptomatic until adulthood when development of CHF like symptoms start. Progressive tricuspid valve regurgitation causes worsening RV function and surgical intervention is recommended at 40% ejection fraction with subpulmonic ventricular pressures less than 50mmHg. Retrospective studies have shown high early and late mortalities in surgical intervention but related to infection and not heart failure. This case provided contraindicatory findings. This patient developed worsening of heart failure symptoms after intervention. The tricuspid valve regurgitation was acting as a blow off valve for the increased pressures and when replaced caused overload of the right heart system.

POSTER # 45

Deep Neck Infection, A Case Report and Review of the Literatures

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INTRODUCTION: Deep neck infection (DNI) occurs in the peritonsillar, submandibular, parapharyngeal and retropharyngeal spaces between the layers of the cervical fascia. In children, tonsillitis is typically the initial insult; in adults, an odontogenic infection is often seen [1]. An understanding of clinical aspects of DNI can facilitate prompt diagnosis in order to prevent potentially fatal complications such as airway compromise, septic shock. A multidisciplinary care plan includes appropriate antibiotic therapy and adequate drainage by interventional radiologist or surgery and possibly wound care.

CASE PRESENTATION: 69-year-old male with past medical history of diabetes mellitus and hypertension presented with significant swelling of the posterior neck extending anteriorly to the face associated with pain, limited range of the neck motion and dysphagia of 10 days duration. Stable vital signs on admission. Physical exam demonstrated a wound on the posterior side of the neck (7.5X10 cm) with fibrinous debris and purulent drainage surrounded by extensive erythema. Increased white blood cells of 48k. Neck CT showed posterior soft tissue swelling involving the subcutaneous fat and peri- vertebral muscles, with poorly defined fluid collection. Antibiotic was started and underwent incision and drainage with extensive debridement which was repeated twice for washout on day two and six. Negative pressure wound therapy (wound vac) was initiated on day 10 which caused significant improvement of the wound healing. The patient was seen doing well 3 weeks post discharge with a near healed wound.

DISCUSSION: DNI presentation varies depending on the location, etiology, patient's age, and comorbidities. The most prevalent etiologies are polymicrobial tonsillitis. Diabetes and hypertension are the most common comorbidities.
Odontogenic infections presenting with odynophagia and/or sore throat followed by trismus, neck swelling, and fever. A rare but possible presentation of DNI can be neurovascular symptoms which was initially our concern upon initial encounter.
The differential diagnosis includes infected giant carbuncle, malignancy, TB, giant lymphadenitis, hidradenitis suppurativa, vascular malformations or pseudoaneurysm, Paraspinal/cervical epidural abscess.

CONCLUSION: DNIs are rare and potentially lethal conditions. Optimal management involves understanding of the anatomy, risks factors, meticulous exam and review of radiologic images. Broad spectrum antibiotic and determination of drainage either image guided or surgical should be done as early as possible. Repeat imaging is helpful in evaluating treatment responses and possible need to repeat drainage. Recent studies showed a great success rate with negative pressure wound management in conjunction with open surgical intervention.

POSTER #46

A Traveler's Mistake: Catching Malaria

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BACKGROUND: A patient from Brooklyn, New York was given the diagnosis of *Plasmodium falciparum* malaria after traveling to Africa. Here we stress the importance that malaria is still considered the leading cause of mortality and morbidity in the developing world. It is important for clinicians to screen and prepare patients that travel to high-risk areas for malaria, as transmission could easily be prevented with chemoprophylaxis and counseling.

CASE REPORT: A 65-year-old female living in Brooklyn, New York, with no significant past medical history presented to the Emergency department with fever, weakness, and poor appetite for 3 days. Social history was significant for one-week travel to Cameroon, Africa. The patient stated that she had one episode of vomiting during her stay in Africa, with occasional subjective fever. She denied any vaccinations prior to travel or taking any chemoprophylaxis before or during her travel. The patient was admitted inpatient for a total of 7 days. Due to the high suspicion of malaria, the patient was initially treated with mefloquine, doxycycline, and ceftriaxone. The patient was transitioned to artemether/lumefantrine once malaria was confirmed. The species of plasmodium resulted on day 7, confirming P. falciparum. Doxycycline was provided at discharge for an additional 7 days.

CONCLUSION: The World Health Organization (WHO) have recently updated its recommendations on malaria prevention that includes three crucial malaria prevention stages. The three stages are seasonal malaria, perennial malaria, previously known as intermittent preventive treatment in infants, and intermittent preventive treatment of malaria in pregnancy (IPTp)[4][5]. In some areas, malaria is seasonally dependent and occurs mainly during the rainy season, whereas in other countries, malaria has high transmission year-round. In Cameroon, Africa, malaria prevalence is dependent on temperatures ranging from 24 to 26 C and rainfall rates of approximately 4 to 6 mm per day [6]. The new recommendation is less stringent on the number of doses as well as an expanded age range at which malaria chemoprevention can be given. The 2010 recommendations recommended three doses to be given at the specific ages of 2, 3, and 9 months of age [4]. Lastly, malaria in pregnancy poses risks to mother and fetus and should be prevented if possible. Malaria chemoprevention is safe and effective in pregnancy. The recommendations from 2012 have changed in two ways: not limiting ITPp to only antenatal care contacts, but additionally recommending IPTp in all pregnant women in malaria endemic areas [4].

POSTER # 47

Feasibility and Outcomes of Monoclonal Antibody Administration in the Emergency Department for Non-Hospitalized Patients with COVID-19

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BACKGROUND: Monoclonal antibody (MAb) infusions were authorized under Food and Drug Administration (FDA) Emergency Use Authorization (EUA) for patients who test positive for COVID-19 but do not require hospitalization. In most health systems, to receive MAb infusions, patients had to schedule appointments and/or attend designated infusions centers. In our health system, patients were assessed and administered MAb in the Emergency Department, greatly enhancing our local community's access to care. In this study, we describe the feasibility of ED based administration of MAb. We also describe return visits outcomes for this population.

METHODS: This is retrospective chart review of patients who received infusion of mAB from January 1-December 31, 2021 at 6 different EDs across a single health system on Long Island, NY. All adult patients who were discharged after MAB treatment completion were included. Demographic and visit data were obtained from the electronic medical record, as well as data on 30-day return visits after discharge. All data is presented descriptively.

RESULTS: During the 12-month period, mAB was administered in the ED to 21,344 ED treat and release patients. The specific mAB given were as follows: bamlanivimab+etesevimanb (6148, 29%), bamlanivimab (2603, 12%), casirivimab+imdevimab (3577, 17%), carisivimab+imdevimab (5656, 26%), sotrovimab (3360, 16%). Regarding return visits, there were 2393 patients (11.2%, 95% CI 10.8-11.6) that had a subsequent ED visit within 30 days of their MAb treatment, and of these 1146 patients (5.4%, 95% CI 5.1-5.7) were admitted to the hospital within the 30 days of their MAb treatment. Only 336 were admitted with a diagnosis related to COVID-19 (1.5%, 95% CI. 1.4. - 1.6).

CONCLUSION: ED-based administration of monoclonal antibodies for treatment of COVID-19 is feasible and offers great potential access to treatments for this patient population, improving the equity of healthcare. Return visits did occur but only 1.5% of revisits were related to COVID-19.

POSTER #48

Acute Hyponatremia Post Mild Symptomatic COVID-19 Infection

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INTRODUCTION: Hyponatremia is the most common electrolyte abnormality in hospitalized patients and defined by a serum sodium level below 135 mmol per liter. The syndrome of inappropriate antidiuretic hormone secretion (SIADH) is considered the most common cause of hyponatremia in hospitalized patients. Multiple etiologies for hyponatremia in SIADH patients have been suggested such as malignancy, pulmonary conditions, central nervous system disorders, and medications. There is a dearth of literature on how mild COVID-19 infections may affect sodium balance in patients.

CASE PRESENTATION: A 64-year-old woman presented to our hospital for weakness and wheezing. Medical history was significant for asthma, hypertension, and mild symptomatic COVID-19 infection six weeks prior. She had been on long term treatment with irbesartan, amlodipine, amiloride-hydrochlorothiazide, and albuterol inhaler. Physical examination was significant for tachycardia at 101 bpm, euvolemia, and mild bilateral wheezing on auscultation. CT chest without contrast was unremarkable. Laboratory investigations were significant for hyponatremia 119 mEq/dl, potassium 3.5 mEq/dl, serum osmolality 254 mOsm/kg, urine osmolality 326 mOsm/kg, urine sodium < 30 mmol/L, morning cortisol 7.7 ug/dl, and TSH 1.290 uIU/ml. Hyponatremia was diagnosed as SIADH. She was treated with fluid restriction, salt tablets, and diuretic cessation. Sodium level improved appropriately. The patient stabilized and was discharged home.

DISCUSSION: This case highlights the occurrence of severe hyponatremia in a patient who had mild symptoms from COVID-19 six weeks prior to medical attention. Several infectious causes of SIADH have been reported; however, hyponatremia associated with COVID-19 has been associated with hospitalized patients. COVID-19 can cause by 1) downregulating angiotensin-converting enzyme 2 (ACE2) by activating type 1 angiotensin receptors and reducing angiotensin synthesis, 2) inducing non-suppressible vasopressin secretion due to a central IL-6 effect, or 3) by affecting the pulmonary milieu similar to a pneumonia causing SIADH (4). A non-infectious etiology of SIADH was the provision of hydrochlorothiazide as a home medication; however, this was a chronic medication with no prior episodes of hyponatremia. COVID-19 associated factors combined with oral thiazides likely explain the patient's severe hyponatremia. Clinicians should consider withholding medications that can cause hyponatremia in patients who are diagnosed with COVID-19 along with repeat blood work and close observation.

POSTER #49

I Can't Believe It Is the Mirtazapine - Dysphagia in Elderly Women

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INTRODUCTION: Dysphagia represents a disruption in the swallowing mechanism, resulting in food not passing from the mouth to the stomach. Oropharyngeal dysphagia occurs when the patient is unable to transfer the food bolus from the mouth into the upper esophagus by swallowing. Patients with esophageal dysphagia can initiate the swallowing process, but often feel discomfort in the mid to lower sternum as the food bolus passes through the esophagus. Dysphagia induced by medication can be classified into drug side effect or medication-induced esophageal injury. We report a unique case of a women presented with dysphagia as a rare side effect of Mirtazapine.

CASE PRESENTATION: An 87-year-old female presented from the nursing home for progressive difficulty swallowing to solid food more than liquid over eight months. She reported her difficulty swallowing had progressed to where she couldn't swallow her medications. Her medical history was heart failure, atrial fibrillation, hypertension, fibromyalgia, depression, and anxiety. Her home medications were apixaban, losartan, hydralazine, torsemide, gabapentin. Mirtazapine was started nine months ago. Upon admission, her vital signs showed blood pressure 164/90 mmHg, heart rate 82 beats per minute, temperature of 98.2 F and oxygen saturation of 97% on room air. Physical examination revealed an elderly woman with morbid obesity. Neurological examination was normal. Outpatient fiberoptic video laryngoscope was normal two weeks prior. Computerized tomography chest and abdomen were negative for any pathological abnormalities. Upper GI endoscopy was normal. As the patient was unable to swallow anything by mouth, her medications were given through intravenous route. Mirtazapine was held due to unavailability of intravenous form. Five days later, patient's dysphagia was improved, and we were able to restart oral mirtazapine. One day after restarting mirtazapine, she complained again of difficulty of swallowing. Psychiatrist was consulted to rule out anxiety issue behind dysphagia and they recommended switching mirtazapine to vortioxetine. Patient symptoms improved after we discontinued mirtazapine and patient was safely discharged to nursing home.

DISCUSSION: Mirtazapine is usually well tolerated. Reported side effects of this drug include increased appetite, weight gain, constipation, and xerostomia. In discussion of dysphagia as a side effect of mirtazapine, a proposed mechanism is via xerostomia. Mirtazapine is associated with xerostomia because of potent antagonist of muscarinic and H_1 histamine receptors. Xerostomia will impair swallowing and it is the cause behind oropharyngeal dysphagia in our patient. In our case, we highlighted the importance of considering mirtazapine as the causative agent for dysphagia after excluding other causes and the disappearance of symptoms after holding mirtazapine.

POSTER # 50

Prion Disease After COVID infection

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INTRODUCTION: Prion diseases are transmissible spongiform encephalopathies manifesting after misfolding prion proteins accumulate within brain cells resulting in rapidly progressive dementia. We explore the potential relationship between prions disease and COVID-19. Since the beginning of the SARS-CoV-2 outbreak, many studies have focused on its various long-term effects. The link between post-COVID-19 syndrome and serious neurological complications such as encephalopathy suggest a neuroinflammatory component.

CASE DESCRIPTION:
A 62-year-old African American man with a history of hypertension and sickle cell trait developed diffuse bradykinesia, drooling and dementia over the past 2 months. Patient was noted to have difficulty ambulating as reported by his coworkers.
He was found on the floor at home by EMS on the floor after a fall and being unable to ambulate and confabulating with notable intermittent brief rapid involuntary jerks.
On admission, the patient was found to be COVID-19 positive but afebrile and asymptomatic. Extensive toxicology and endocrinology workup was completed which came back negative. First lumbar puncture was negative for any infectious agents. CT brain and MRI brain both of which repeated twice and were normal without any diffusion restriction. EEG was repeated twice and revealed findings of mild encephalopathy with no sharp wave complexes. Second lumbar puncture for autoimmune encephalitis panel found 14-3-3 protein to be elevated to 3902 (ref range <30 - 1999 Au/mL).
A diagnosis of probable CJD was established based on the positive detection of 14-3-3 protein in CSF alongside the clinical picture of rapidly progressive dementia with bradykinesia and myoclonus. Prognosis was fatal and patient was provided with palliative care until the patient deceased due to cardiopulmonary arrest 6 weeks after admission. Diagnosis of prion disease is a difficult process and involved imaging (figure 1) as well as EEG (figure 2) criteria but 14-3-3 can provide support to a probable diagnosis.

DISCUSSION: COVID-19 has been described to result in prion disease. It has not been determined whether cytokine storms contribute to prion development, but excessive protein secretions might influence protein misfolding [5]. SARS-CoV2 use their S1 spike proteins to attach to cell membrane ACE2R receptors [6-7]. S1 spike proteins were hypothesized to possess prion-like properties with potential contribution to neurodegenerative conditions [8].

CONCLUSION: Controversial evidence about COVID-19 and neurodegeneration has been present in literature. There is still no definite biochemical evidence of such a correlation. Nonetheless, it has been evident that multiple neurodegenerative conditions might be a result of pathogenic illnesses most commonly prion disorders.

POSTER # 51

Acute on Chronic Pancreatitis: Revenge of the Triglycerides

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BACKGROUND: Hypertriglyceridemia-induced pancreatitis (HTGP) is an uncommon cause of acute pancreatitis with relatively high morbidity and mortality. HTGP is mostly caused by uncontrolled diabetes and heavy alcohol intake. Treatment is usually based on known supportive measures for acute pancreatitis and quick resolution of hypertriglyceridemia through insulin infusion and plasmapheresis. However, no formal protocols are in place suggesting these interventions and evidence is scarce. Here we present a case of HTGP in a middle age nondiabetic man with excessive alcohol intake.

CASE PRESENTATION: A 55-year-old man with a history of CKD3a and alcohol use disorder with chronic pancreatitis presents with a three-day history of severe epigastric pain associated with nausea, vomiting, and poor oral intake. He reports heavy drinking for the past two weeks. On arrival, the patient was hemodynamically stable. Laboratory chemistry revealed elevated lipase (211 U/L), hyperbilirubinemia (3.5 mg/dL), elevated transaminases (AST 5101 U/L, ALT 1103 U/L), and worsening renal function (3.92 mg/dL). Tylenol, salicylate, ethanol, and urine toxicology levels were negative. Viral and autoimmune hepatitis serologies were negative. Right upper quadrant ultrasound consistent with hepatic steatosis. Lipid profile on admission showed a cholesterol >600 mg/dL and triglycerides (TG) 1932 mg/dL. Patient was initiated on *nil per os.* Treatment was started with insulin infusion with dextrose 5% in water intravenous fluids, as well as Omega-3 acid. TG improved to 981 mg/dL and insulin infusion was discontinued on day 3 of admission. Diet was resumed on day 4, given TG 230 mg/dL. His liver function tests improved by day 7 of admission. Patient was started on statin; however, fibrates were withheld due to decreased renal function.

CONCLUSION: Elevated serum triglyceride levels increase the risk of cardiovascular disease and acute pancreatitis. The risk of acute pancreatitis increases progressively with serum triglyceride levels over 500 mg/dL. Therefore, early clinical recognition of HTGP is important to provide appropriate and timely therapy to prevent further episodes. For patients with severe hypertriglyceridemia, many therapies have been proposed. However, there is no consensus on first-line therapy. When compared to plasmapheresis, intensive insulin infusion therapy proves to be a safer and more cost-effective therapy. Ongoing clinical trials are being developed to demonstrate that insulin infusion therapy is not inferior to plasmapheresis in the treatment of HTGP. This case highlights the importance of considering severe hypertriglyceridemia as a cause of acute pancreatitis and the effectiveness of insulin therapy in non-diabetic patients with heavy alcohol use.

POSTER # 52

Down the Black Tunnel: A Case of Acute Esophageal Necrosis

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BACKGROUND: Acute esophageal necrosis (AEN) is characterized by a diffuse circumferential darkening of esophageal mucosa due to necrosis. Its prevalence is <1% in autopsies and EGD series. Some risk factors are male sex (4:1), elderly age (average ±60 years old), chronic diseases as HTN and T2DM, sepsis, infections, and alcohol use.

CASE: A 52-year-old woman presented with hypotension and active upper gastrointestinal bleeding (UGIB). Her medical history included T2DM, HTN, previous cardiac arrest with percutaneous endoscopic gastrostomy and tracheostomy placement, esophageal ulcers and several episodes of septic shock. On admission, blood pressure was 60/43 mmHg, heart rate 139 beats/min. On physical exam, patient was spitting dark blood from her mouth. On blood work, hemoglobin 6.6 g/dL, white blood cell 27.1k/uL, lactic acid 3.6 mmol/L, and INR 1.7. Patient tested positive for COVID-19.
She was admitted to ICU and had an emergent esophagogastroduodenoscopy (EGD) which revealed extensive, circumferential ulcerative necrosis with active bleeding along the esophagus. A submucosal pulsating mass with active bleeding was found in the lower third of the esophagus, and EGD was aborted to prevent perforation. CTA chest and abdomen showed active UGIB from the distal third esophagus and gastric fundus. Embolization of left gastric artery was done. However, due to her poor prognosis she was placed on comfort care and expired 9 days later.

DISCUSSION: As previously mentioned, our patient had most of the risk factors for AEN including chronic diseases, several episodes of hypotension, previous esophageal insults, and an acute systemic infection due to COVID-19. One of the most popular causality theories is the “two-hit” hypothesis: an initial event of hypoperfusion predisposes the esophageal mucosa to a severe topical injury by gastric reflux. AEN is usually located in the distal portion of the esophagus, a poorly vascularized area. Clinical presentation is usually UGIB, with hematemesis or melena in up to 70-90% of cases. Previously only seen at time of autopsy, now it is more frequently discovered during EGD. Therapeutic approach is mostly supportive with intravenous fluid resuscitation and gastric acid suppression with intravenous proton pump inhibitors. Mortality risk is high in these patients (13-35%), however, death is not directly attributed to AEN but to the underlying diseases that caused it. In conclusion, AEN is a rare cause of UGIB but carries a high mortality risk and should be included in the differential diagnosis of UGIB in patients with multiple comorbidities and initial hemodynamical instability.

POSTER # 53

A Case of Carotid Artery Dissection due to Chronic Cough in a Healthy Male

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CASE: A 39-year-old male with no medical history presented with slurred speech and right upper extremity numbness. His initial vitals, labs, ECG, and chest x-ray were grossly unremarkable. He was alert and oriented to time, person, and place. Within 3 hours in the emergency room, his weakness worsened rapidly. A new right facial droop and complete plegia of the right upper extremity 0/5 were apparent. The CT angiogram of the head and neck revealed left internal carotid artery (ICA) occlusion and dissection. Head CT revealed a subacute infarct in the left frontal lobe. He was immediately started on a heparin drip and underwent balloon angioplasty with intracranial ICA stenting. His right arm gradually regained full power of 5/5 and his facial droop resolved. On taking detailed history, it was revealed that he was suffering from an untreated chronic cough. A chest CT was unrevealing, and the auto-immune panel was negative. He was discharged home with dual antiplatelet therapy, atorvastatin, and guaifenesin. At his latest follow-up visit, he was cheerful and had no residual weakness, facial droop, or slurred speech. The CT angiography showed healing of the dissection flap with complete disappearance of the second lumen.

DISCUSSION: Respiratory infections such as acute bronchitis or pertussis have been shown to cause a variety of complications including urinary incontinence, rib fractures, pneumothorax, syncope, encephalopathy, and intracranial hemorrhages. However, post-tussive ICA dissection and stroke are extremely rare. The pathophysiologic mechanism is likely due to repeated high intracranial pressures which cause a tear in the tunica intima leading to dissection. Stasis of blood in the pseudo-lumen promotes blood clot formation which can subsequently cause embolic strokes. Stenosis of the true lumen can also cause ischemic strokes. Treatment is usually medical with anti-platelet drugs but in severe cases such as this one, acute intervention and recanalization of the dissected artery is warranted. This case highlights the importance of adequately addressing even minor symptoms in a timely manner. Although the cause of the cough remains unknown in this patient, it was successfully treated with guaifenesin.

CONCLUSION: Young healthy patients with ICA dissection should be asked about a possible history of cough. Chronic cough must be promptly diagnosed and treated. If ignored it can lead to catastrophic complications like carotid artery dissection and stroke.

POSTER # 54

Septic Shock from Pan-Epidural Abscess Attributed to Recent Acupuncture and Trigger Point Injections for Nonspecific Chronic Low Back Pain in Previously Undiagnosed Diabetic Patient

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INTRODUCTION: Spinal epidural abscess (SEA) is extremely uncommon in medical practice and even more rare is SEA related to acupuncture and trigger point injections (TPIs) performed for chronic back pain (CBP). We describe a 60-year-old female who presented with rapidly progressive inability to walk independently following recent acupuncture and TPIs for CBP and demonstrated Pan SEA and newly diagnosed DM with DKA upon admission.

CASE: 60-year-old female with history of CBP managed with occasional NSAIDs, asthma, gestational DM, and hypertension brought to emergency department with confusion for past two days. Four days ago, she had first ever session of acupuncture followed by TPI for CBP. On presentation, patient had fever and quadriplegia. She was intubated for airway protection. Labs revealed leukocytosis and increased anion gap metabolic acidosis due to newly diagnosed DM presenting as DKA. Pan Spine CT scan with contrast showed multilevel bilateral thoracic and lumbar nerve root impingement. Due to high suspicion for meningitis, lumbar puncture (LP) was attempted but aborted immediately due to grossly purulent aspirate. Pan Spine MRI with contrast showed SEA extending from C1 through the sacrum with paraspinal soft tissue involvement at the T6-T8 and L3-L5 regions. Emergent cervical, thoracic, and lumbar laminectomy with evacuation of multi-level SEA was performed. Blood and CSF cultures grew MSSA bacteremia and antibiotics were changed to cefazolin. Endocarditis workup was negative. Patient's mental status returned to normal, and her upper extremity weakness improved to 4/5 strength, but her bilateral lower extremity paraplegia (BLEP) persisted. She was extubated on hospital day 6. On hospital day 17, she developed septic shock due to perforation in the ascending colon attributed to ischemia. Urgent right hemicolectomy was performed. Apart from persistent BLEP, her condition clinically improved and on day 32, she was discharged to subacute rehab with an additional 10-week course of IV cefazolin. As of 8 months post discharge, she is stable, but without further neurological improvement.

DISCUSSION/CONCLUSION: SEA should be among top differential diagnosis if triad of fever, neurological deficits, and encephalopathy with risk factors like DM and recent spinal interventions are present. As per data, 4 to 22% of patients with non-Pan-SEA develop irreversible paraplegia, and 5% of patients die from sepsis or other related causes. Urgent MRI with contrast followed by neurosurgical intervention and antibiotic coverage likely prevented progression of neurological impairment to quadriplegia and mortality in our patient.

POSTER # 55

It's Complicated: Cases of IVIG Resistant Kawasaki Disease with Macrophage Activation Syndrome in an Infant and Parapneumonic Effusion in a Toddler

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BACKGROUND: IVIG Resistant Kawasaki Disease is rare, but important to recognize due to the higher risk of cardiovascular sequelae.

OBJECTIVE: Two cases of complicated, IVIG resistant Kawasaki Disease are discussed.

CASE VIGNETTE
CASE 1: A 6-month-old girl was diagnosed with incomplete Kawasaki Disease (fever for 5 days, generalized polymorphous rash, conjunctivitis, extremity changes; mucositis developed 2 days after). Prior to admission, she was given antibiotics for otitis media, then steroids for serum sickness. Initial echocardiogram was unremarkable. Test results revealed hyponatremia, elevated ALT, and elevated inflammatory markers, including ferritin. Systemic steroids were given with IVIG due to potential IVIG resistance based on Kobayashi criteria. Macrophage activation syndrome was also suspected. Persistent fever warranted a second IVIG infusion and pulse steroid therapy. Fever resolved on the first day of pulse methylprednisolone (fourth day). The patient clinically improved and was discharged on the ninth day. Echocardiography one week after revealed normal anatomy and function. Four weeks after discharge, the baby remains well with stable cardiovascular exam.
CASE 2: A 20-month-old boy presented with cough and classic Kawasaki disease (fever for four days, rash, conjunctivitis, unilateral cervical lymphadenopathy, mucositis). Two days prior, he was started on albuterol and steroids for reactive airway disease. On admission, test results showed rhinovirus/enterovirus infection, hyponatremia, elevated inflammatory markers, and elevated ALT. Echocardiogram and chest radiography were unremarkable. Fever persisted after IVIG infusion, warranting a second dose. Fever abated, but then recurred along with new onset respiratory distress. Interval radiography revealed right moderate parapneumonic effusion. Antibiotics were started and thoracentesis performed. Fever was intermittent until the seventh day, so antibiotic coverage was expanded, and steroids resumed. Echocardiogram showed dilation of both coronary arteries (8mm). Aspirin and anti-coagulation therapy were started. On the eighth day, fever resolved, and echocardiography showed interval improvement of both coronary arteries (5mm). The patient clinically improved and was discharged on the thirteenth day. Two days after discharge, the patient remains stable with same coronary artery size.

RESULTS: Two cases of IVIG resistant Kawasaki Disease were presented. Cardiovascular sequelae occurred in a male toddler with IVIG resistant Kawasaki Disease complicated by a parapneumonic effusion.

CONCLUSION: Pediatricians should have a high index of suspicion for IVIG resistant Kawasaki Disease for timely diagnosis, additional therapy and prevention of cardiovascular complications.