The efficacy and utility of teaching about health disparities in pediatrics

#1

Presenting Author	Alicia Lew, BS, Department of Medicine, University of South Florida Morsani College of Medicine, Tampa, FL
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Category	**Bioethics & Medical Education**
Title	**The efficacy and utility of teaching about health disparities in pediatrics**
Abstract	Background: It is known that significant child health disparities exist by socioeconomic status, level of disabilities, and sexual orientation. Addressing pediatric medical conditions ranging from infant mortality to obesity and asthma within these specific populations varies. Some contributing factors include funding, resources, geographic locations, and education about these specific patient groups. As a result, patients outside of the majority or below the poverty line are incidentally marginalized and unable to receive optimal health care. One of the first steps to addressing this problem is understanding who we are treating and how to appreciate the social and medical barriers they face. Pediatricians serve as essential members of society by working as advocates for their patients. Pediatricians act as a voice for children about their health care, environment, and education. However, very little education is done concerning the unique distinctions between various patient populations and how to apply this knowledge in practice. Much work still needs to be done concerning the education of our local providers about the health disparities amongst such patient populations. Methods/design: The study will include a curriculum focused on discussing special populations in pediatrics and developing a skill set to apply this gained knowledge in clinical practice. This education-based project will be a live and interactive lecture series discussing topics including LGBT youth, children in poverty, and children with disabilities. Residents, including the incoming interns will be the subjects who will attend the live lectures. Additionally, lecture resources and video recordings will be provided as supplemental material. The subjects baseline knowledge will be compared to their post-curriculum understanding through pre- and post-curriculum assessments. A survey and verbal feedback will also be conducted to assess the efficacy and organization of the curriculum for future improvements. Results/findings: The study is scheduled to begin in September-October. The anticipated finding is that there will be a statistically significant improvement from the pre-curriculum to the post-curriculum assessments indicating an improvement in the subjects' understanding of the lecture material. It is also anticipated that the surveys will reveal the subjects' improved confidence in approaching these patients in clinical practice and their benefits from participating in this curriculum. Conclusions/implications This study will hopefully show the utility and importance of discussing these learning topics in pediatric practice. The foundational understanding of these patient populations are not widely discussed in residency training at this point in time. This comes at the cost of these patients' medical care. The goal of this curriculum is to enhance pediatric clinicians' ability to manage the medical care of these special populations with confidence. As a result, quality of patient care will directly benefit as the curriculum continues and improves over time.
Learning Objectives	- discuss the prevalence, unique characteristics, and medical and psychological risks of each special population discussed through the course of the curriculum - demonstrate the ability to apply learned material to clinical practice - reflect on gained knowledge and assess the utility and efficacy of the curriculum for future improvements

Educational intervention enhances clinician awareness of Christian, Jewish and Islamic teachings around end of life care

#2

Presenting Author	Amanda Copenhaver, BS, Scholarly Concentrations Program, University of South Florida Morsani College of Medicine, Tampa, FL
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Category	**Bioethics & Medical Education**
Title	**Educational intervention enhances clinician awareness of Christian, Jewish and Islamic teachings around end of life care**
Abstract	**BACKGROUND:** Religion and spiritual values impact patients' goals and perception of illness, especially at the end-of-life. According to the Joint Commission, addressing spiritual needs is a primary palliative care skill and identifying spiritual beliefs and practices may improve cultural competency and patient-centered care. However, clinicians may be uncomfortable discussing and unaware of basic religious teachings. **DESIGN:** After literature review and consultation with religious leaders, a pre-test and post-test (10-questions per religion plus a demographic survey with the pre-test) to assess knowledge of Christian, Jewish and Islamic teachings and an educational video podcast were developed. The pre-test was administered to physicians, registered nurses, nurse practitioners, pharmacists and health care students (medical, pharmacy and nursing), followed by a one-hour educational intervention via a video podcast. Differences between pre- and post-test scores were analyzed employing paired T test tests using SPSS software. **RESULTS (preliminary):** Seventy-three health care providers participated in this study. The median score on the pre-test was Christian: 6 [2-9], Jewish: 6 [4-10] and Islamic: 6 [2-8]; demonstrating greatest pre-test knowledge in Judaism. After the educational intervention, the median Christian, Jewish and Islamic scores improved to 8 [4-10], 9 [6-10] and 10 [3-10], respectively, and all were statistical significant ($p < 0.0001$). Additionally, the total pre-test median improved from 17 [10-24] to 27 [16-30]. **CONCLUSIONS:** A one-hour educational intervention via video podcast significantly improved knowledge of Christian, Jewish and Islamic teachings around end-of life care. The video podcast design enabled easy distribution of the educational session to multiple facilities and health care providers. Providers were encouraged to inquire about patients' unique beliefs and preferences during end-of-life care. Additional research is needed to determine the longitudinal outcomes and impact on patient outcomes of this intervention.
Learning Objectives	I. Demonstrate enhanced familiarly with, sensitivity to, and respect for Christian, Jewish, and Islamic teachings, which may be important to patients near the end-of-life; II. Better fulfill the Joint Commission's recommendations for improved effective communication and cultural competency by assessing patients' religious/spiritual beliefs and practices at the end of life; III. Appreciate and be open to the diverse values and practices each patient holds even when a patient self-identifies with a particular world religion.

Clinician and Patient Perspectives on LGBTQ Healthcare Disparities

#3

Presenting Author	Madeline Barnes, MS II, University of South Florida Morsani College of Medicine, Tampa, Florida
Category	**Bioethics & Medical Education**
Title	**Clinician and Patient Perspectives on LGBTQ Healthcare Disparities**
Abstract	Madeline Barnes, MS II, University of South Florida Morsani College of Medicine, Tampa, Fl Vinita Kiluk, MD, Assistant Professor, University of South Florida, Tampa, Fl Background/Knowledge Gap The LGBT, gender non-conforming (GNC), and differences of sex differentiation (DSD) communities have had significant barriers to getting adequate medical care throughout history. In 2010 56% of LGB and 70% of transgendered/GNC surveyed experienced severe barriers including being denied care and verbally or physically abused by healthcare providers. This is compounded by a lack of knowledge surrounding health concerns particular to the LGBTQ community. Currently, the median amount of time spent on LGBT-related content in North American medical schools is only 5 hours, substantially below the amount needed to appropriately train future physicians. Methods/Design Interviews were conducted with physicians to discuss the needs, disparities, and clinical approaches appropriate for the LGBT, GNC, and DSD communities. Interviews were also done with physicians and curricular experts from medical schools at the forefront of LGBT, GNC, and DSD education in order to learn the best ways to teach future physicians. Results/Findings The education medical students receive regarding the LGBT, GNC, and DSD populations produces physicians who are unprepared to treat these communities. The goal for a physician should be to create an inclusive environment in all aspects from the forms to the office staff, resources available, and language the physician uses. It is important to create this environment for all patients, not just people who are suspected of being members of the LGBT, GNC, and DSD communities. Creating an integrated curriculum teaches students that patients from these populations will be encountered regularly in their practice and that these patients are no different from any others. Ways to achieve integration are educating with gender neutral and inclusive language, teaching the needs of these populations, and increased exposure to these communities.
Learning Objectives	Upon completion of this lecture, learners should be better prepared to discuss the disparities faced by the LGBT, GNC, and DSD communities and identify ways to improve training for treatment from these populations.

This poster has been WITHDRAWN

Ethnographic Case Study: Perceptions of Tampa Police Department's (TPD) Comprehensive Program to Reduce Cardiovascular Morbidity and Mortality in Law Enforcement Officers (LEOs)

#4

Presenting Author	Catherine Divingian, MS MBA PhD, Medical Student, University of South Florida College of Medicine, Tampa, FL
Category	**Emergency & Disaster Medicine**
Title	**Ethnographic Case Study: Perceptions of Tampa Police Department's (TPD) Comprehensive Program to Reduce Cardiovascular Morbidity and Mortality in Law Enforcement Officers (LEOs)**
Abstract	Since the 1960s, Florida Statute 112.18, known as the "Heart/Lung Bill", as well as Florida Statute 440.15(3), a portion of the State's Worker's Compensation Act, have been in place to help provide medical and monetary benefits for first responders. Many law enforcement officers (LEOs) are at greater risk for myocardial infarction, coronary artery disease, cardiac arrhythmias, hypertension, and other serious conditions due to the stressful nature of the work. The hazards of this occupation may involve exposure to life-threatening conflicts, hypervigilance, complex posttraumatic stress disorder, and extreme physical exertion. Additionally, obesity and low testosterone are common risk factors among LEOs that negatively impact health and contribute to cardiovascular disease (CVD). Research demonstrates that police officers die 15 to 21 years earlier than other Americans. This pilot study investigated the Tampa Police Department (TPD), one of the most proactive police departments in the State of Florida, that provides an extensive offering of programs aimed to reduce morbidity and mortality due to CVD. The study investigated the numerous occupational-health programs. The study utilized an ethnographic case study approach to determine the nature of the work conditions and the impact of the occupational programs; observing stress responses, perceptions of program benefits and command support, and adaptations in health behaviors; all in the context of improving cardiovascular health in LEOs.
Learning Objectives	The learning objectives are to raise awareness of how law enforcement officers face increased morbidity and mortality due to cardiovascular diseases; to reflect on how the Tampa Police Department occupational-health programs impact the officers; and to recognize individual variations among officer responses to the programs.

Genomics Immunoscoring of Lung Adenocarcinoma

#5

Presenting Author	Yaping N. Tu, M.S. DO Candidate, Student, Molecular Medicine, University of South Florida Morsani College of Medicine, Tampa, FL Wei Lue Tong, MD Candidate, Department of Medicine, USF Morsani COM, Tampa Fl
Co-authors	George Blanck, Ph.D., Full Professor, Department of Molecular Medicine, USF Morsani COM, Tampa Fl Wei Lue Tong, MD Candidate, Department of Medicine, USF Morsani COM, Tampa Fl Blake Callahan, M.S., Department of Molecular Medicine, USF Morsani COM, Tampa Fl
Category	**Bioethics & Medical Education**
Title	**Genomics Immunoscoring of Lung Adenocarcinoma**
Abstract	Genomics-based immunoscoring was examined using RNA Seq information and survival data on human lung adenocarcinoma whole exome files made available by genome data commons. The process was further refined by examining and identification of immune receptor recombination reads extracted from whole exome sequence files representing over 500 samples. Here we report robust detection of T cell and B cell recombination reads in the lung adenocarcinoma exome files, and in particular, the correlation of the recovery of certain recombination reads with different trends of survival outcome, a result supported by further analysis of mRNA expression.
Learning Objectives	All seven immune receptors can be recovered from LUAD exome files. The recovery of certain immune receptor recombination reads corresponds to certain survival rates

Lung tumor exome files with T-cell receptor recombinations: A model of T-cell infiltrates reflecting mutation burdens

#6

Presenting Author	Wei Lue Tong, MD Candidate, Department of Medicine, USF Morsani COM, Tampa Fl
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Category	**Medicine & Medical Subspecialties**
Title	**Lung tumor exome files with T-cell receptor recombinations: A model of T-cell infiltrates reflecting mutation burdens**
Abstract	Tumor exomes and RNASeq data were originally intended for obtaining tumor mutations and gene expression profiles, respectively. However, recent work has determined that tumor exome and RNAseq read files contain reads representing T-cell and B-cell receptor (TcR, BcR) recombinations, presumably due to infiltrating lymphocytes. Furthermore, the recovery of immune receptor recombination reads has demonstrated correlations with specific, previously appreciated aspects of tumor immunology. To further understand the usefulness of recovering TcR and BcR recombinations from tumor exome files, we developed a scripted algorithm for recovery of reads representing these recombinations from a previously described mouse model of lung tumorigenesis. Results indicated that exomes representing lung adenomas reveal significantly more TcR recombinations than do exomes from lung adenocarcinomas; and that exome files representing high mutation adenomas, arising from chemical mutagens, have more TcR recombinations than do exome files from low mutation adenomas arising from an activating Kras mutation. The latter results were also consistent with a similar analysis performed on human lung adenocarcinoma exomes. The mouse and human results for obtaining TcR recombination reads from tumor specimen exomes are consistent with human tumor biology results indicating that adenomas and high mutation cancers are sites of high immune activity. The results indicate hitherto unappreciated opportunities for the use of tumor specimen exome files, particularly from experimental animal models, to study the connection between the adenoma stage of tumorigenesis, or high cancer mutation rates, and high level lymphocyte infiltrates.
Learning Objectives	The above results indicate that two aspects of mouse T-cell infiltrates, as detected by mining tumor specimen exome files, simulate natural human characteristics of cancer development: robust T-cell infiltration of adenomas and of high mutation cancers. The availability of the mouse for the study of these natural human disease states offers the opportunity to pinpoint detailed features of human cancer development, particularly related to the anti-cancer immune response, which has largely been studied via model systems that do not completely reflect complexities of the human cancers being targeted by the human immune system.

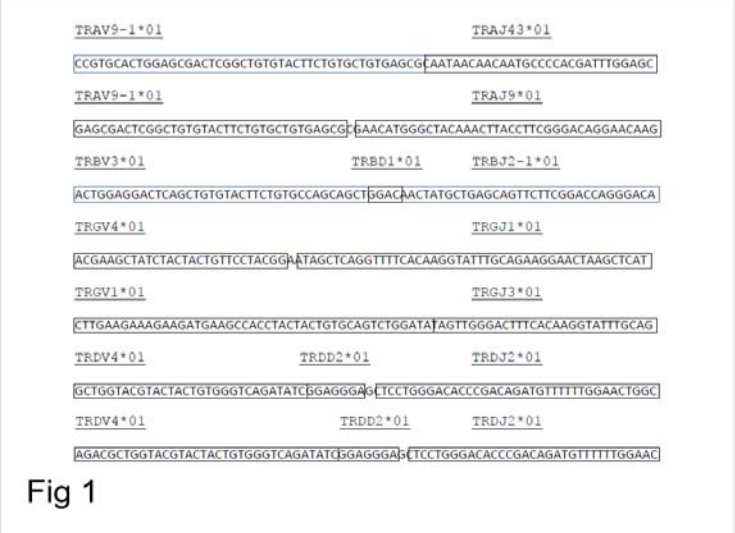

Fig 1

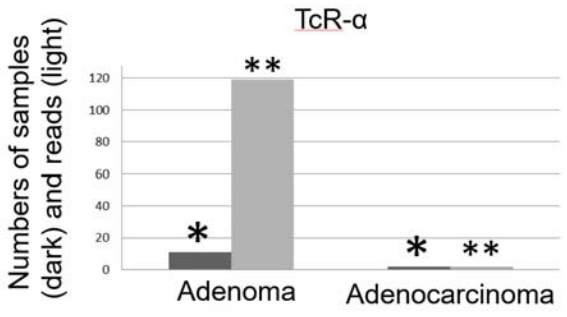

Fig 2A

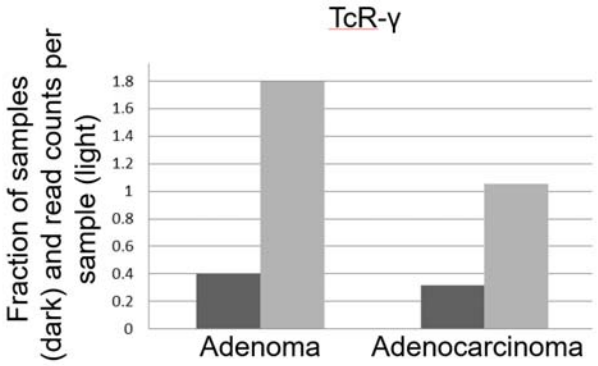

Fig 2B

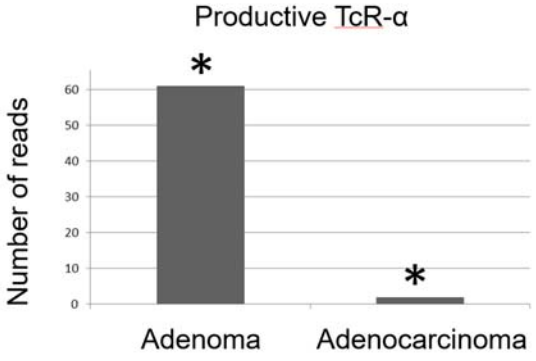

Fig 2C

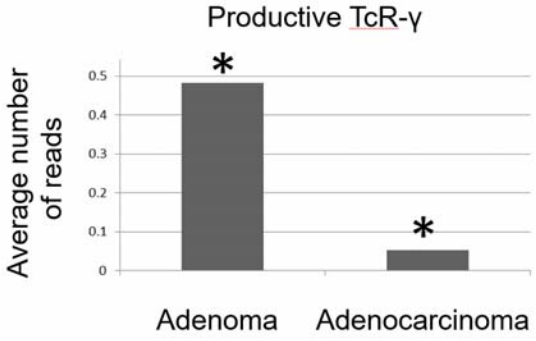

Fig 2D

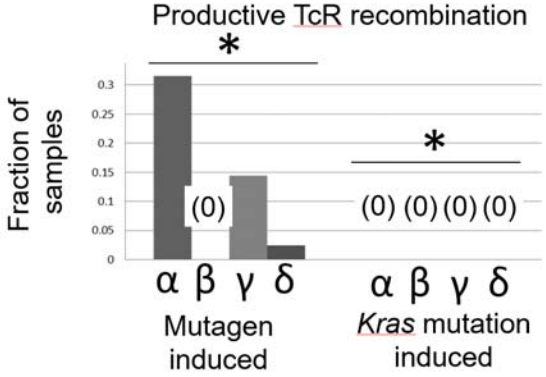

Fig 3A

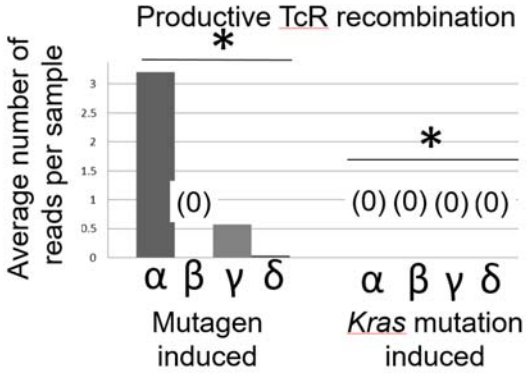

Fig 3B

Rare case of Brugada Type I in Caucasian Male with typical EKG findings

#7

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Category	**Bioethics & Medical Education**
Title	**Rare case of Brugada Type I in Caucasian Male with typical EKG findings**
Abstract	Brugada syndrome is an autosomal dominant genetic disorder with variable expression characterized by abnormal EKG findings with increased risk of sudden cardiac death and ventricular arrhythmias 40 y/o Caucasian male with no past medical history came to the hospital after a presyncopal event associated with lightheadedness, palpitations and diaphoresis lasted for 3-4 minuntes while he was eating at a restaurant. He reported similar episodes couple of times in the past. He denied loss of consciousness, chest pain, seizure, cardiac history or family history of sudden cardiac death. Additional history revealed that he had been drinking alcohol and was using a recreational drug named “Kratom” and his symptoms seemed to get worsen after drinking and using the drug. EKG showed the typical findings suggestive for Brugada syndrome type I i.e ST elevation of >2mm in V1 and V2 with negative T waves. Laboratory investigation was normal including the cardiac enzymes and electrolytes. Patient had been hemodynamically stable and symptom free during the hospital stay. Echo was negative for structural abnormailities. Electrophysiological study was negative for inducible ventricular arrhythmias or fibrillation. He had an ICD implantation using the standard procedure and was discharged on beta blockers. Afterwards, patient did not report any other similar episode or event during pacemaker checks. This case illustrated the typical EKG diagnostic criteria for Brugada Syndrome Type I which is more prevalent in South Asian population and rare in Caucasians. It is important to risk stratify the patients with Brugada Syndrome to decrease future risk for ventricular arrythmias and sudden cardiac death.
Learning Objectives	1. Identify typical EKG features of Brugada Syndrome. 2. Understand the prevalance of Brugada Syndrome and it's rarity in Caucasian population. 3. Recognize the augmentation of symptoms due to multiple factors like alcohol or recreational drugs.

Urinary Tract Infections in Hospitalized Infants with RSV Bronchiolitis

#8

Presenting Author	Meghana Totapally, Student, New Albany High School, New Albany, OH
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Category	**Medicine & Medical Subspecialties**
Title	**Urinary Tract Infections in Hospitalized Infants with RSV Bronchiolitis**
Abstract	BACKGROUND: Urinary tract infection (UTI) is the most common bacterial infection in infants admitted to the hospital with bronchiolitis due to respiratory syncytial virus (RSV). OBJECTIVE: To evaluate the prevalence and outcome of hospitalized infants with coexisting UTI and RSV bronchiolitis in the United States using the 2012 Kids' Inpatient Database (KID). METHODS: A retrospective cross-sectional study was performed using the 2012 KID of Agency for Healthcare Research and Quality. Children aged 1 month to 1 year with a primary diagnosis of RSV bronchiolitis were included. Coexisting UTI was identified using ICD-9-CM codes. In children with RSV bronchiolitis, infants with and without UTI were compared. Sample weighting was employed to produce national estimates. RESULTS: Of a total 335,865 discharges in 2012, 54,036 infants had a diagnosis of RSV bronchiolitis (prevalence of RSV bronchiolitis was 16.1%). UTI coexisted in 914 infants (prevalence of UTI in infants with RSV bronchiolitis was 1.7%). Infants with concurrent UTI and RSV bronchiolitis, were more likely to be female (48% vs. 43%; OR 1.2, CI 1.1-1.4), have severe sepsis or septic shock (0.44% vs. 0.06%; OR 7.3, CI 2.6-20.7), and require mechanical ventilation (9.4% vs. 3.2%; OR 3.1, CI 2.5-3.9) compared to infants without UTI. More infants with RSV and coexisting UTI were in All Patient Refined Diagnosis Related Groups (APR-DRG) subclasses 3 and 4 compared to 1 and 2 for risk of mortality and severity of illness ($p < 0.001$). The median [IQR] length of hospital stay (4 [2-6] vs. 2 [2-4] days; $p < 0.001$) and total hospital charges (16,507 [10,094-31,422] vs. 9,740 [5,651-17,636] dollars; $p < 0.001$) were significantly higher in infants with RSV and UTI. The overall mortality rate was 0.0222%. CONCLUSIONS: This study describes the overall prevalence of UTI in hospitalized infants with RSV bronchiolitis in the U.S. UTI was present in 1.7% of infants with RSV bronchiolitis. Infants with coexisting UTI were sicker, more often required mechanical ventilation, had a longer length of stay, and had higher hospital charges.
Learning Objectives	1) To describe national prevalence of Urinary Tract Infection among infants hospitalized with RSV bronchiolitis. 2) To compare demographic and severity of illness between children with UTI and without UTI among a cohort of hospitalized infants with RSV bronchiolitis.

Marked F-18 FDG avidity in Hürthle Cell Carcinoma

#9

Presenting Author	Robert Schuh, MD, Resident Physician, Department of Radiology, University of Missouri, Columbia, MO
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Category	**Medicine & Medical Subspecialties**
Title	**Marked F-18 FDG avidity in Hürthle Cell Carcinoma**
Abstract	Introduction Extremely high rate of cell turnover and metabolism is common in thyroid malignancy. Focal thyroid uptake of F-18 FDG is associated with malignancy in 24-36% of cases (1). Previous studies have suggested SUV-max greater than 10 as a significant indicator for increased mortality (2). F-18 FDG PET/CT has been found to be 92% sensitive for Hürthle cell thyroid carcinoma and able to detect approximately half of the tumors not seen with conventional imaging (3). The use of F-18 FDG PET/CT scan in this patient clearly demonstrates and re-affirms its usefulness in evaluation of thyroid masses and Hürthle cell carcinoma. Case presentation A 59 year old man presented with a palpable left thyroid lobe mass in 2005 for which he underwent total thyroidectomy. Pathology demonstrated a 9 cm x 6 cm x 5 cm Hurthle cell carcinoma with clear margins. No adjuvant treatment was given at that time. 5 years later, the patient presented with a palpable supraclavicular nodule. This nodule was found to be metabolically inactive on F-18 FDG, however the patient did have an F-18 FDG avid nodule in the primary resection bed. Neither nodule demonstrated uptake on radioiodine imaging. Both nodules were surgically resected, with the supraclavicular nodule found on pathology to be a benign lymph node and the thyroid resection bed nodule found to be recurrence of Hurthle cell carcinoma. Final Diagnosis Recurrent radio-iodine resistant Hurthle cell carcinoma. Outcome and Follow-up The patient's thyroid bed recurrence regressed after surgery with adjuvant radiation therapy. 3 years later, he developed numerous F-18 FDG avid and radio-iodine negative lung nodules. These have continued to grow and are currently being treated with lenvatinib. The patient's symptoms are limited to mild treatment side effects including fatigue and hand and foot rash. References: 1. Kinahan PE, Fletcher JW. PET/CT Standardized Uptake Values (SUVs) in Clinical Practice and Assessing Response to Therapy. Seminars in ultrasound, CT, and MR. 2010;31(6):496-505. doi:10.1053/j.sult.2010.10.001. 2. Pryma, D, et al. "Diagnostic Accuracy and Prognostic Value of 18F-FDG PET in Hurthle Cell Thyroid Cancer Patients." Journal of Nuclear Medicine 2006; 47:1260-1266. http://jnm.snmjournals.org/content/47/8/1260. 3. Lowe, Val. "18F-FDG PET of Patients with Hurthle Cell Carcinoma." The Journal of Nuclear Medicine. 2003;44:1402-1406. http://jnm.snmjournals.org/content/44/9/1402.
Learning Objectives	Recognize the utility of F-18 FDG PET in addition to radio-iodine imaging for evaluation of thyroid malignancy

Diagnosing Concurrent Leukemias: CLL/SLL and AML

#10

Presenting Author	Nicholas Wnukowski, BS: pending 2017, Student, Department of Pathology, University of Alabama at Birmingham, Birmingham, AL
Co-authors	Danielle Fasciano DO, David Ullman MD, Erin Baumgartner MD, Vishnu Reddy MD
Category	**Medicine & Medical Subspecialties**
Title	**Diagnosing Concurrent Leukemias: CLL/SLL and AML**
Abstract	Introduction: Chronic lymphocytic leukemia is a relatively indolent hematologic malignancy that in rare instances can transform to acute leukemia. We present one such case. Case presentation: A 83-year-old male with a medical history significant for chronic lymphocytic leukemia (CLL) presented with progressive fatigue, generalized weakness, intermittent dizziness and dyspnea with exertion requiring multiple hospitalizations with concern of possible acute leukemic transformation of CLL. The patient was transferred to UAB Hospital for further management. At UAB, a bone marrow biopsy was performed. Subsequent, flow cytometric examination demonstrated that the specimen had a CD5+ monoclonal population with the following immunophenotype: CD19+, CD20lo, CD5+, CD23+, CD10- with low kappa light chain restriction and approximately 12% of the CD5+ monoclonal B-cells were CD38+, consistent with CLL/SLL. Upon microscopic examination of the corresponding peripheral blood smear, a second population of immature myeloid cells resembling possible myeloblasts was noted. Re-analysis of the flow cytometric data revealed a second malignant population consisting of immature myeloblasts (36% of total cells) with the following immunophenotype: CD117+, CD34-, CD13-, CD33+, CD15-, CD64-, CD14-, CD7-, CD56lo/-, HLA-DR-, CD123lo, and CD38-. Final diagnosis: The diagnosis of CLL/SLL with concurrent AML was rendered. Management: The patient has received supportive care and required multiple blood products. The patient was deemed not a candidate for standard induction therapy and he was admitted to hospice care.
Learning Objectives	Learning objective: This case demonstrates the potential pitfall of diagnosing two concurrent hematologic malignancies. It is easy to concentrate on one malignant population and ignore other discrete malignancies/abnormalities. This case also highlights the utility of concurrent blood smear examination when reviewing flow cytometric data.

Therapy-related high grade myelodysplastic syndrome arising in a patient with Muir-Torre Syndrome

#11

Presenting Author	Nicholas Wnukowski, BS: pending 2017, Student, Department of Pathology, University of Alabama at Birmingham, Birmingham, AL
Co-authors	David Ullman MD, Danielle Fasciano DO, Gabe Koenig DO, Deniz Peker MD, Assistant Professor, Department of Pathology, University of Alabama at Birmingham, Birmingham, AL
Category	**Medicine & Medical Subspecialties**
Title	**Therapy-related high grade myelodysplastic syndrome arising in a patient with Muir-Torre Syndrome**
Abstract	Nicholas Wnukowski, David Ullman MD, Danielle Fasciano DO, Gabe Koenig DO, Deniz Peker MD. Department of Pathology, the University of Alabama at Birmingham, Birmingham, AL Introduction: Muir-Torre Syndrome (MTS) is a rare hereditary autosomal dominant cancer syndrome and is linked to hereditary non-polyposis colorectal carcinoma (Lynch Syndrome). Individuals develop various skin neoplasms in addition to colorectal, endometrial and upper gastrointestinal malignancies. Therapy-related myelodysplastic syndrome (t-MDS) is an aggressive hematologic malignancy and is considered pre-leukemic phase. T-MDS is associated with prior exposure to chemo- and radiotherapy that potentially cause DNA damage. Case presentation: Case 74 year old male with a known history of MTS is presented with persistent cytopenias. Approximately ten years previously, the patient was diagnosed with gastric, colorectal, and prostatic adenocarcinoma, and multiple cutaneous neoplasms for which he received various chemotherapeutic regimens and radiation. Final Diagnosis: A bone marrow biopsy revealed multilineage dysplasia with high blast count and a diagnosis of high grade t-MDS was rendered. FISH analysis revealed a deletion 5q and monosomy 7 and karyotyping revealed a complex karyotype which are all predictors of a poor clinical outcome. Management: This a unique case of t- MDS arising in the setting of MTS. Secondary malignancies including MDS and acute leukemia may occur in cancer survivors and often associated with an unfavorable prognosis. In the current case, patient's age and existing co-morbidities pose a significant challenge for the available treatment modalities. The current patient is unlikely a candidate for stem cell transplant which is the only potentially curative modality in MDS.
Learning Objectives	It is crucial to be aware of the risk of secondary hematologic malignancies in cancer patients and a thorough clinical and lab work-up are warranted in patients with persistent or transfusion requiring cytopenia(s).

Should you really go with the Flow (cytometry)?

#12

Presenting Author	Nicholas Wnukowski, BS: pending 2017, Student, Department of Pathology, University of Alabama at Birmingham, Birmingham, AL
Co-authors	David Ullman MD, Erin Baumgartner MD, David Dorn MD, Danielle Fasciano DO, Vishnu Reddy MD. Department of Pathology, University of Alabama at Birmingham, Birmingham, AL
Category	**Medicine & Medical Subspecialties**
Title	**Should you really go with the Flow (cytometry)?**
Abstract	Introduction: Flow cytometry has a very high sensitivity and specificity in the diagnosis of non-Hodgkin's lymphoma. However, in rare circumstances, such a sampling errors, false negative results occur. Case presentation: A 73-year-old male presented with sepsis associated with obstructing gallstones. CT and PET scans showed widespread lymphadenopathy and a thickened gallbladder wall. Fine needle aspiration of a suspicious lymph node revealed reactive changes in the setting of sepsis. However, due to a CT-CAP scan revealing lymphadenopathy involving the periportal, retroperitoneal, and bilateral external iliac nodes, lymphoma could not be completely ruled out. The patient subsequently underwent a cholecystectomy and lymph node resection. The lymph node was sent for flow cytometry and microscopic examination. Final Diagnosis: Flow cytometry revealed no evidence of a monoclonal lymphoid population. However, microscopic examination revealed focal areas of large B-cell lymphoma, , favoring non-germinal center subtype. The neoplastic cells were positive for CD20, CD79a, MUM1, BCL-6 (partial) and EBV/EBER. The Ki67 proliferative rate was approximately 90%. Management: The patient was initiated on a chemotherapy regimen (R-CHOP) for the treatment of his large B-cell lymphoma.
Learning Objectives	Learning objectives: This case demonstrates the limitations of flow cytometry, particularly in respect to focally positive lymph node specimens, and highlights the need for concurrent microscopic examination in all cases.

Do not blame the sepsis!

#13

Presenting Author	Bishoy ElBebawy, MD, Department of Medicine, Bassett Medical Center and Columbia University College of Physicians and Surgeons, Cooperstown, New York.
Co-authors	Balpreet Chouhan, MD, Department of Medicine, Bassett Medical Center and Columbia University College of Physicians and Surgeons, Cooperstown, New York.
Category	**Medicine & Medical Subspecialties**
Title	**Do not blame the sepsis!**
Abstract	Balpreet Chouhan MD and Bishoy ElBebawy MD, Department of Internal Medicine, Bassett Medical Center and Columbia University College of Physicians and Surgeons, Cooperstown, New York. Introduction: Acute pulmonary embolism (APE) is an obstruction of the pulmonary artery or one of its branches due to a thrombus, emboli or tumor. Its presentation is variable, diagnosis is challenging and is missed in many patients. Overall incidence is 12 cases per 100,000 and mortality from APE is 100,000 deaths per year in the U.S. Case Presentation: A 85-year-old female with a past medical history of dementia, hypertension and polymyalgia rheumatica on prednisone presented to ED from a nursing home after a fall. History was difficult to obtain from the patient. However, she denied any fever, chills, chest pain, shortness of breath, palpitations, cough, abdominal pain, headache or focal deficits. Vital signs on presentation included blood pressure 112/66, pulse 73, oral temperature 38.4 °C, respiratory rate 16 breath/minute and Oxygen saturation 92 % on room air. Physical exam revealed an elderly lady, alert but disoriented, no acute distress, normal cardiopulmonary and abdominal exam. Lower extremities exam revealed no swelling. Laboratory workup revealed WBCs 17.4, Hemoglobin 11.4, potassium 5.1, random glucose 225, Creatinine 1.3, Troponin 0.57, Lactic acid 3.5, urinalysis revealed 2+ bacteria and 6-10/hpf WBCs. EKG was unremarkable.. Initially sepsis protocol was activated and patient was given IVF and was started on zosyn. Elevated troponin was thought to be demand ischemia in the setting of sepsis. Repeat Lactic acid was 1.7. However, repeated Troponin was 0.48. Final Workup/diagnosis: Transthoracic Echocardiogram (TTE) was ordered due to elevated troponin and revealed new severe Right Ventricle dilation and dysfunction. There was high suspicion for APE and she was started on Heparin drip. Spiral CT showed extensive bilateral central and peripheral pulmonary emboli. Hypercoagulable work up including protein C, S, factor V Leiden were negative, CT abdomen and pelvis were negative for any masses. Patient was discharged on Apixaban for life.
Learning Objectives	Elevated Troponin in the setting of sepsis doesn't always mean demand ischemia. APE should always be suspected especially in patients with risk factors. TTE might be a cost effective way to look for a massive life-threatening APE especially in the setting of elevated Troponin.

Personalizing management options of recurrent pancreatic acinar cell carcinoma, a rare pancreas cancer: combining molecular biology with patient centered values

#14

Presenting Author	India Eaford, BA, MS, medical student, University of South Florida Morsani College Of Medicine, Tampa, FL
Category	**Medicine & Medical Subspecialties**
Title	**Personalizing management options of recurrent pancreatic acinar cell carcinoma, a rare pancreas cancer: combining molecular biology with patient centered values**
Abstract	Author: India Eaford, BA, MS, medical student, University of South Florida Morsani College Of Medicine, Tampa, FL Introduction: Pancreatic acinar cell carcinoma is a rare tumor that represents 1-2% of adult pancreatic tumors. Within the exocrine pancreas, the most common malignancy arises from the pancreatic ductal cells to form adenocarcinoma. The cells of origin for acinar tumors are believed to arise from the enzyme secreting acinar cells. Despite the absence of prospective data regarding outcomes of these rare tumors, retrospective studies suggest that pancreatic acinar cell cancer responds to treatment differently than pancreatic ductal adenocarcinoma. Understanding these molecular differences in tumor biology in conjunction with prioritization of patient centered values can help personalize care in the setting of recurrent disease. Case Presentation: A 62-year-old gentleman presented with painless jaundice and an otherwise normal physical exam. The differential diagnosis considered cholangiocarcinoma, choledocholithiasis, and pancreatic tumors. Contrast-enhanced CT showed a mass in the pancreatic head. He underwent a Whipple resection (pancreatoduodenectomy) with a positive tumor margin. Pathology confirmed a pT3N1 poorly differentiated acinar cell carcinoma of the pancreatic head, body, and uncinate process with 3 of 8 involved nodes. Final/Working Diagnosis: Acinar cell carcinoma Management/Follow-up/Outcome: Adjuvant therapy consisting of 4 cycles of gemcitabine followed by 5 weeks of 5-FU based chemoradiation was completed in July 2014. Restaging CT and PET scans 7 months later showed hypermetabolic soft tissue infiltration near the celiac axis consistent with recurrent disease. The recommended chemotherapy was FOLFIRINOX to be maximally aggressive. The patient opted for FOLFIRI to avoid potential neuropathy; this was followed by 5 fractions of stereotactic body radiation therapy (SBRT). Intervention in a specialized supportive care clinic improved his overall performance status. He then did well until his third recurrence. Most important to the patient are pursuing treatments that maintain his quality of life. He is now on single agent gemcitabine with plans to enroll in a clinical trial in the future.
Learning Objectives	Upon completion of this lecture, learners should be better prepared to 1) identify how the management of this rare pancreatic acinar tumor differs from the common type of pancreatic ductal adenocarcinoma and how the differences in the molecular biology influence choice of treatment, 2) discuss the worse survival outcomes of a positive surgical margin status post pancreatic surgery and what multidisciplinary preoperative strategies could enhance the potential for margin negative resection, 3) recognize the importance of patient centered values in prioritizing care options and how innovative supportive care measures can improve the patient's quality of life while undergoing cancer treatment.

Elucidate the role of ALDH2 activator Alda-1 in airway cells exposed to hyperoxia

#15

Presenting Author	Adeeb A. Bulkhi MD MS, Allergy and Immunology Fellow, Internal Medicine, Allergy and Immunology division, University of South Florida, Tampa, Florida
Co-authors	Ramani Soundararajan PhD, Biological Scientist, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida Lee Tan, Lab technician, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida Alexander Czachor, , Lab technician, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida. Richard F lockey MD, Distinguished University Health Professor, Professor of Medicine, Pediatrics & Public Health, Director, Division of Allergy & Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida. Narasaiah Kolliputi PhD, Associate Professor, Division of Allergy & Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida.
Category	**Medicine & Medical Subspecialties**
Title	**Elucidate the role of ALDH2 activator Alda-1 in airway cells exposed to hyperoxia**
Abstract	Adeeb A. Bulkhi MD MS, Allergy and Immunology Fellow, Ramani Soundararajan PhD, Biological Scientist, Lee Tan, Lab technician, Alexander Czachor, Lab technician, Richard F lockey MD, Professor of Medicine, Pediatrics & Public Health, Narasaiah Kolliputi PhD, Associate Professor, Division of Allergy & Immunology, Department of Internal Medicine, University of South Florida, Tampa, Florida. Very short description: Hyperoxic lung injury leads to the formation of reactive oxygen species (ROS), which causes lipid peroxidation and formation of toxic secondary metabolite, 4-hydroxynonenal (4-HNE). 4-HNE is highly reactive and forms protein adducts impairing mitochondrial enzymes and causing mitochondrial dysfunction. Aldehyde dehydrogenase (ALDH2) is a mitochondrial enzyme that metabolizes toxic biogenic and environmental aldehydes, including the endogenously produced 4-hydroxynonenal (4HNE). Alda-1 is known to restore ALDH2 activity and mitigate mitochondrial damage. The objective of this study was to explore the role of Alda-1 in hyperoxic lung injury. Objectives: To elucidate the protective mechanism of ALDH2 activator ,Alda-1 in hyperoxia induced mitochondrial dysfunction. Methods: For this study, we used both in vitro and in vivo model of hyperoxia. C57BL/6J mice were placed in cages and exposed to room air (normoxia) or 100% O2 (hyperoxia) for 24, 48, or 72h, respectively. Total RNA was extracted from mice exposed to hyperoxia for 24-72 h and ALDH2 mRNA expression was assessed. Similarly, ALDH2 activity was measured in mitochondrial isolates of mice lung homogenates from 24-72h. For in vitro studies, we used human small airway epithelial cells (SAECs), H441 and LA4 cells. SAECs were cultured at 37oC in a 5% CO2 humidified incubator for 1 to 7 days under standard growth conditions. SAECs were treated with various concentration of 4-HNE (10-100 M) or vehicle at 37CO for 15 min followed by JC-1 staining and confocal microscopy. Further, SAECs were transfected with Mito-GFP (green fluorescent protein) construct for 24 h, treated with 20 µM of Alda-1 or vehicle for 30 min, then subjected to hyperoxia for 48h. Mitochondrial generation of superoxide was detected by MitoSox staining. A mito-GFP construct was used as a control. A live cell imaging was performed using confocal microscope. To assess the effect of Alda-1 pre-treatment on mitochondrial membrane potential, we exposed H441 and LA4 cells to 20 µM of Alda-1 or vehicle for 30 min prior to hyperoxia exposure for 48h followed by JC-1 staining and confocal microscopy. Results: For the in vivo experiment, we found that under hyperoxic conditions, there was no change in ALDH2 mRNA transcript at 24-72 h. Interestingly, there was a significant decrease in ALDH2 activity at 48 h, which further decreased at 72 h. We also observed that with a decrease in ALDH2 activity, there

	was a concomitant increase in 4-HNE levels. The treatment of SAECs with different 4-HNE concentration revealed a dose dependent decrease in mitochondrial membrane potential. Pre-treatment of H441 and LA4 cells with Alda-1 restored mitochondrial membrane integrity as measured by JC-1 staining. In addition, Alda-1 pre- treated SAECs showed a significant decrease in mitochondrial ROS relative to controls. Conclusions: Our data shows a protective role of Alda-1 against hyperoxia induced mitochondrial damage. Further, it suggests an important therapeutic role for Alda-1 in mitigating mitochondrial dysfunction under hyperoxia. Results Supported by: This work was supported by NIH RO1 grant (HL105932) to N.K. Keywords (5): ALDH2, Hyperoxia, Alda-1, 4-HNE, Mitochondrial dysfunction
Learning Objectives	Upon completion of this lecture, learners should be better prepared to: 1. describe the deleterious effect of hyperoxia on mitochondrial function. 2. Examine therapeutic role for Alda-1 in mitigating mitochondrial dysfunction under hyperoxia.

Hypokalemic Nephropathy Secondary to Conn Syndrome

#16

Presenting Author	Ramon A. Docobo, MD, PGY-2 Internal Medicine Resident, Brandon Regional Hospital, Brandon, FL
Co-authors	Mohammad Sadeddin, MD, PGY-3 Internal Medicine Resident, Brandon Regional Hospital, Brandon, FL
Category	**Medicine & Medical Subspecialties**
Title	**Hypokalemic Nephropathy Secondary to Conn Syndrome**
Abstract	1st Author- Ramon A. Docobo, MD, PGY-2 Internal Medicine Resident, Brandon Regional Hospital, Brandon, FL 2nd Author- Mohammad Sadeddin, MD, PGY-3 Internal Medicine Resident,Brandon Regional Hospital, Brandon, FL Introduction Conn Syndrome (Primary Hyperaldosteronism) is defined as excess production of the aldosterone by the adrenal glands. The presenting signs of primary aldosteronism are hypertension and hypokalemia. Hypokalemic nephropathy is a potential serious complication in affected patients. Presentation A 38-year-old African American male with a history of hypertension presented with left flank pain x 1 day. He described the pain as aching, non-radiating, 10/10 in severity, aggravated by movement, and relieved by OTC aspirin. He denied fever, chills, sweating, chest pain, shortness of breath, abdominal pain, urinary, or bowel changes. Current medications were atenolol and amlodipine. He smokes 1 pack per day and has a family history of hypertension. His vital signs were stable except for blood pressure of 200/123. His physical exam was within normal limits. Differential diagnosis included secondary hypertension, acute kidney injury, and hypokalemic nephropathy. His labs showed K of 1.9, Cr. 2.22, and GFR of 43. Renin level was <0.167, and aldosterone was 33.6. Renal ultrasound showed bilateral cystic kidneys and CT abdomen showed a left adrenal nodule. Diagnosis/Management The patient's previous records showed a K of 1.6. He was diagnosed with hypokalemic nephropathy secondary to primary hyperaldosteronism. He was started on hydralazine and spironolactone, in addition to his home medications, and 80 mEq of potassium orally twice a day. His repeat blood pressure and K levels two weeks later were, 130/90 and 5, respectively. Conclusion It is necessary to recognize that prolonged hypokalemia may be detrimental to the kidneys. It can lead to interstitial nephritis, fibrosis, and cyst formation. Although the cysts may be reversible when correcting the potassium, the associated renal insufficiency may not. Therefore, identifying and treating the underlying cause of chronic hypokalemia, in our case primary hyperaldosteronism, is imperative to prevent further progression of renal insufficiency.
Learning Objectives	1.Discuss how Conn Syndrome can lead to Hypokalemic nephropathy 2. Discuss diagnosis and work up of Primary Hyperaldosteronism

The Curious Case of Clostridia perfringes Choledocholithiasis

#17

Presenting Author	Sadiya Usman, MD, Internal Medicine Resident, PGY2, OakHill Hospital, Brooksville, Florida
Co-authors	Sulman Hassan, MD, PGY1, Internal Medicine Resident, PGY2, OakHill Hospital, Brooksville, Florida; Nikolay Mitzov, Associate Program Director, OakHill Hospital, Brooksville, Florida; Dr. Guesly Delva, MD, Infectious Disease, OakHill Hospital, Brooksville, Florida; Lyle Breeding, MD, Surgery, OakHill Hospital, Brooksville, Florida; Salman Muddassir, MD, Program Director, OakHill Hospital, Brooksville, Florida
Category	**Medicine & Medical Subspecialties**
Title	**The Curious Case of Clostridia perfringes Choledocholithiasis**
Abstract	Sadiya Usman MD, PGY2, Internal Medicine Resident , Sulman Hassan, MD, PGY1 Internal Nikolay Mitzov, Associate Program Director, Guesly Delva,MD, Infectious Disease, Lyle Breeding, MD, Surgery, Salman Muddassir,MD, Program Director Department of Internal Medicine, OakHill Hospital , Brooksville, Florida BACKGROUND Clostridium species are Gram-positive, spore-forming, obligate anaerobic bacilli. Bacteremia with C. perfringes is usually seen in immunocompromised states like malignancies, renal insufficiency, hemodialysis, heart disease, diabetes, Crohn's disease, COPD, stroke and other chronic illnesses. Here in we present a rare case of C. perfringens bacteremia associated with choledocholithiasis. The motive is to make physicians aware of this entity, as this is associated with high mortality and morbidity, especially in the elderly. CASE PRESENTATION Patient is an 86 year old Caucasian male with past medical history significant for paroxysmal A fib, COPD on home O2 (4L), hypertension, hyperlipidemia, Aortic stenosis s/p AVR and pacemaker placement (sept 2016), CAD, and prostate cancer s/p radiation presented with chief complaint of shortness of breath. Examination revealed decreased breath sounds. CXR showed right lower lobe pneumonia, wbc: 14.4 × 103/mm3 (normal range 4–11) Patient was started on Vancomycin and Zosyn and was treated for Hospital Acquired Pneumonia. Patient was also found to have elevated LFT's, US abdomen revealed liver measuring 18 cm, a 1.8 x 1.6 x 1.3 cm nonspecific lesion right lobe of the liver. Sludge and stones in the gallbladder with wall thickening measuring 0.4 cm. Patient then developed abdominal pain during his stay, physical examination was remarkable for mild tenderness in the right upper quadrant with positive Murphy's sign and guarding, but no rebound. Blood cultures revealed C. perfringes in the anaerobic bottles. On obtaining records from his recent hospitalization, we found that patient had bacteremia at another hospital, and was diagnosed and treated for ascending cholangitis. We deduced that the gall bladder was the source of bacteremia. Patient agreed to cholecystectomy. HIDA prior to surgery which showed no evidence of biliary obstruction or cystic duct obstruction. Pt underwent the cholecystectomy revealed sub-centimeter common bile duct filling defect which may be due to stone. Following this he had an ERCP sphincterotomy and stone extraction. His liver function tests improved, and repeat cultures were negative. Patient was discharged to home with PO antibiotics. REFERENCES: World J Gastroenterol. 2012 Oct 21; 18(39): 5632–5634. Published online 2012 Oct 21. doi: 10.3748/wjg.v18.i39.5632, Antwan Atia, Tejas Raiyani, Pranav Patel, Robert Patton, and Mark Young

	Case Rep Gastroenterol. 2014 Sep-Dec; 8(3): 404–407. Published online 2014 Dec 24. doi: 10.1159/000371540 PMCID: PMC4307004, Aibek E. Mirrakhimov,* Gopika Chandra, Prakruthi Voore, Maliha Khan, Oleksandr Halytskyy, Ahmed Elhassan, and Alaa M. Ali
Learning Objectives	DISCUSSION Advanced age even independent of comorbidities increases the risk of clostridial infection which is explained by age-related increase of clostridial species in the normal intestinal flora. C. perfringens is frequently isolated from the biliary tree and gastrointestinal tract. Encountering clostridium perfringens bacteremia makes further workup for discovery of the source is very important. Clostridium perfringes is rarely associated with choledocholithiasis. This case demonstrates the importance of a wide differential as identifying the source is necessary to prevent potentially fatal outcomes.

NOCARDIOSIS MIMICKING SPOROTRICHOSIS

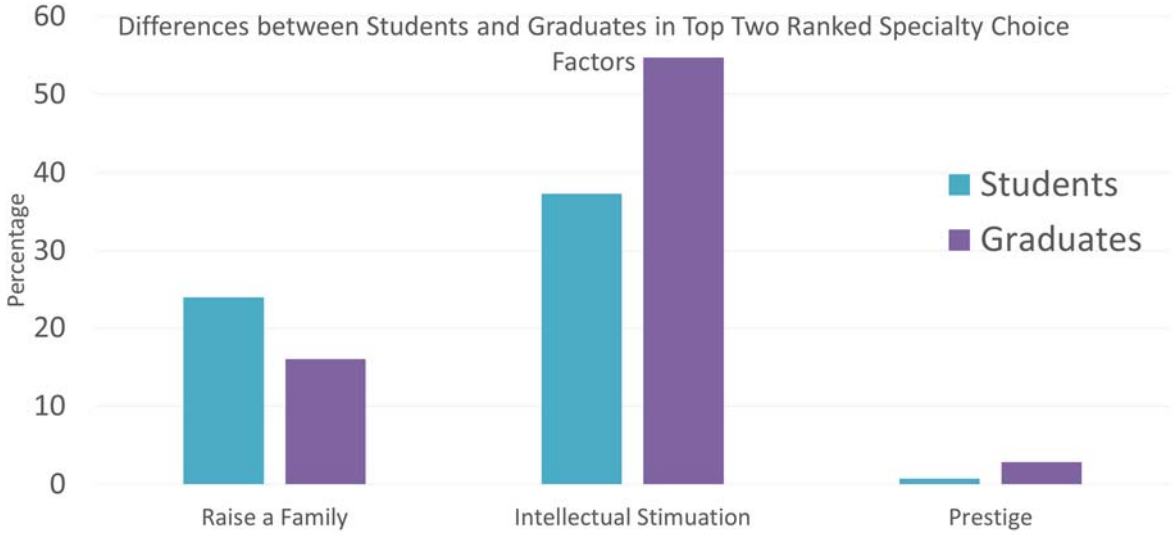
#18

Presenting Author	Chad Hietschold, DO student, MS4, Kansas City University, Kansas City, MO
Co-authors	Dana Culver, DO student, MS4, Kansas City University, Kansas City, MO Andres Marte, MD, Associate Professor, Department of Medicine, Virginia Tech school of medicine Keri Mason, DO, Associate Professor, Department of Medicine, Nova Southeastern University
Category	**Medicine & Medical Subspecialties**
Title	**NOCARDIOSIS MIMICKING SPOROTRICHOSIS**
Abstract	Authors: C. Hietschold, MS4, Kansas City University, Kansas City, MO. D. CULVER, MS4, Kansas City University, Kansas City, MO A. Marte MD, Associate Professor, Department of Medicine, Virginia Tech School of Medicine K. Mason DO, Associate Professor, Department of Medicine, Nova Southeastern University. Introduction: Nocardiosis is classically an infection seen in immunocompromised individuals as either a pulmonary or central nervous system infection. We describe two immunocompetent patients with a cutaneous manifestation of nocardia. Case Presentation: A previously healthy 79 year old man was admitted after developing multiple erythematous papular lesions on the medial aspect of his right knee and thigh. The rash developed after a saw grazed the lateral aspect of his knee while cutting down a tree. He subsequently developed right popliteal and inguinal lymphadenopathy in a pattern that resembled an infection by the organism Sporothrix schenckii. Our second patient was a 77 year old man that developed a similar sporotrichoid rash involving his right upper extremity after gardening. Prior to obtaining the wound culture results on both patients, Sporothrix schenckii and Staphylococcus aureus were at the top of our differential list. Outcome and Management: Both patients were started on linezolid and Bactrim prior to obtaining wound culture results which grew Nocardia. Our 77 year old patient was discharged home on Bactrim while the 79 year old was sent home on augmentin. This presentation of nocardia is extremely rare with only six reported cases of nocardia species presenting in a sporotrichoid pattern in the English literature. Of those six cases only two involved immunocompetent patients.
Learning Objectives	- Recognize the common situations in which nocardia skin infections are acquired. - Examine the ways in which nocaria cutaneous infections manifest themselves - Consider two patients with cutaneous lesions in a sporotrichoid pattern and discuss the

Generational and Gender Differences in Medical Specialty Choice

#19

Presenting Author	Samantha Steinberg, MS3, University of South Florida Morsani of College of Medicine and Paige Crocus, MS3, University of South Florida Morsani of College of Medicine
Co-authors	Dr. Stephanie Romero, MD, Assistant Professor, University of South Florida Morsani College of Medicine Obstetrics & Gynecology
Category	**Medicine & Medical Subspecialties**
Title	**Generational and Gender Differences in Medical Specialty Choice**
Abstract	Paige Crocus, BS, medical student, Morsani College of Medicine, USF, Tampa, FL Samantha Steinberg, BS, medical student, Morsani College of Medicine, USF, Tampa, FL Dr. Stephanie Romero, MD, assistant professor, Department of Obstetrics and Gynecology, Morsani College of Medicine, USF, Tampa, FL Background/Knowledge Gap: Many factors play a role in the ultimate selection of a medical specialty by students. Among these are intellectual stimulation, lifestyle, and income potential. We sought to evaluate whether the medical specialty choice and reasons for that choice were influenced by gender, and whether that differed according to age of survey respondent. Methods/Design: A total of 694 students and 980 medical school graduates at USF were surveyed using Qualtrics. Categorical variables were compared using chi square or Fisher's exact test as appropriate; continuous variables were assessed using a student t test. STATA version 12 was used for statistical analysis. Results/Findings: The student survey was completed by 144 (20.7%); the faculty survey was completed by 118 (12.0%). Our results showed that male and female faculty respondents ranked income and duration of training as the most important factors leading to specialty choice. Male and female students ranked interest in field and intellectual stimulation as the most important factors in specialty choice. ($p<0.001$) Male respondents were more likely than female respondents to describe their specialty as difficult to balance career and home life ($p=0.026$). However, there was no difference between genders as far as describing their chosen specialty as easy or difficult to have children ($p=0.32$). Male and female respondents were equally likely to make the same specialty choice if they were of the opposite gender ($p=0.63$). Conclusions/Implications: The differences in specialty choice appear to be motivated more by generation and age than by gender, since the male and female respondents tended to respond similarly at the same level of training. One limitation of our study is that the population of graduates surveyed was limited to those in academic practice, which introduced selection bias. This study could be improved by sending the same survey to practicing physicians who work in a community or private setting.
Learning Objectives	1) Identify various factors that play a role in medical specialty. 2) Recognize that there may be differences in the values that influence specialty choice based on a medical professional's current stage in training and gender.


Differences between Students and Graduates in Top Two Ranked Specialty Choice Factors
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50
40
30
20
10
0
Percentage
Students
Graduates
Raise a Family
Intellectual Stimuation
Prestige

An unusual case of Abdominal Pain: Localized Vasculitis of the Gastrointestinal tract (LVGT)

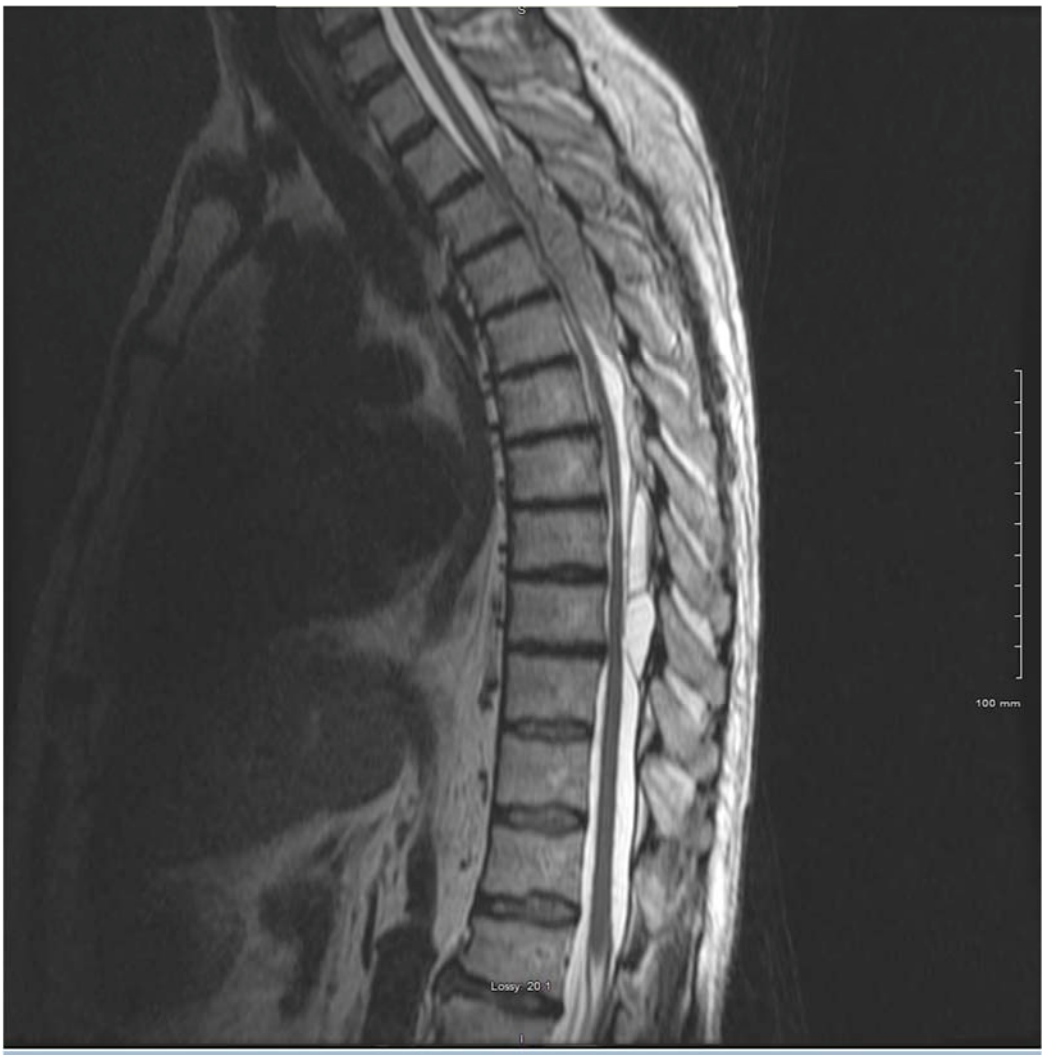
#20

Presenting Author	Zarin Pirzada MD1, Internal Medicine Resident PGY1, Brandon Regional Hospital HCA
Co-authors	Eduardo Moreno MD, Internal Medicine Resident PGY2, Brandon regional Hospital HCA; Rajesh Sonani MD1, Internal Medicine Resident PGY1, Brandon Regional Hospital HCA, Maria del Mar Constain MD, Cauca University, Colombia, Shayan Butt MD, Internal Medicine Resident PGY1, Yvonne Braver MD, FACP1, Internal Medicine Program Director, Brandon Regional Hospital HCA
Category	**Medicine & Medical Subspecialties**
Title	**An unusual case of Abdominal Pain: Localized Vasculitis of the Gastrointestinal tract (LVGT)**
Abstract	LVGT often occurs as part of a systemic process and is a manifestation of small and medium sized vessel vasculitis. LVGT may manifest as abdominal pain, diarrhea, and/or GI bleeding. Two thirds of the patients present with acute abdomen requiring surgical intervention and laboratory features are non specific. The profile for autoantibodies may be negative in almost all patients. A 52 y/o Caucasian male with PMH of hypertension, recurrent uveitis and lower extremity vasculitis presented with progressively worsening dull and periumbilcal abdominal pain for 6 hours prior to the admission. It was 6/10, associated with bloating, lightheadedness, and diaphoresis. On PE, VS were within normal limits. Had tenderness in periumbilical area with no guarding or rebound. His CBC, CMP, urinalysis and CXR were normal, except for creatinine 1.29 mg/dl and GFR of 60 ml/min/1.73m2. The Abdominal CTA scan showed wall thickening with adjacent stranding in the superior mesenteric artery (SMA). Abdominal MRI confirmed the findings of vasculitis describing a thin rim of circumferential abnormal soft tissue density around the SMA suggesting nonspecific vasculitis changes. The workup was negative for autoimmune disorders with normal ANA, ANCA, anti-MPO antibodies, antiphospholipid antibodies, ESR, C3 and C4. HIV serologies, Hepatitis panel and RPR were also negative. Prednisone was started at 60 mg q8 hours and improved clinically within 2 days. So, he was discharged on prednisone 60 mg daily for 4 weeks with gradual taper every 4 weeks up to 20 mg daily as maintenance dose and periodic follow-up for development of systemic vasculitis. There are two medical treatment options for LVGT based on review of literature. Patients can be started on prednisone from 50-60 mg/day or alternatively, steroid pulse therapy for 3 days and discharged on oral prednisone with median treatment length of 7.5 months. But, there is no consensus about duration of treatment. This case also emphasizes the need for regular follow-up in LGVT as it could be an initial manifestation of more severe systemic vasculitis.
Learning Objectives	1. Recognize LVGT as part of a systemic process and as a manifestation of small and medium sized vessel vasculitis. 2. Identify the need for regular follow-up in LGVT as it could be an initial manifestation of more severe systemic vasculitis.

A Paralyzing cough: rare case of Spontaneous Spinal Epidural Hematoma (SSEH)

#21

Presenting Author	Eduardo Moreno MD, PGY2 Resident, Department of Internal Medicine, Brandon Regional Hospital HCA, Brandon, FL
Co-authors	Maria del Mar Constain MD, Zarin Pirzada MD1, Talha Badar MD1; Kanwal Pirzada MBBS; Shayan Butt, MD1, Ivis Rodriguez MD1, Yvonne Braver MD, FACP1 1 Department of Internal Medicine, Brandon Regional Hospital, Brandon, Florida, USA
Category	**Medicine & Medical Subspecialties**
Submission Type	Case Presentation
Title	**A Paralyzing cough: rare case of Spontaneous Spinal Epidural Hematoma (SSEH)**
Abstract	Case History A 49 y/o male with history of hypertension, hyperlipidemia, hepatitis C, and COPD, presented with a sharp shooting pain in the upper back radiating towards the front of chest one day after a violent coughing spell. The patient also reported weakness, numbness and tingling in his lower legs. On exam, he had decreased lower limb strength 2/5 bilaterally, decreased ankle and knee jerk deep tendon reflexes, sensation to light touch and pinprick up to T4. Proprioception and anal sphincter tone were impaired. Vibratory sensation was preserved. CBC, metabolic and coagulation profiles were normal. He denied taking aspirin or anticoagulants. CT spine showed an epidural hematoma extending from C2 to T10 with mass effect on the upper portion of thoracic spinal cord. He received one dose of 80 mg methylprednisolone and was taken to surgery approximately 8 hours after presentation for T3-T5 laminectomy and epidural hematoma evacuation. He also received dexamethasone 10 mg every 6 hours, which was tapered off in 5 days. The patient had gradual but incomplete neurologic recovery upon discharge for rehabilitation. Discussion We present a unique case of spontaneous spinal epidural hematoma (SSEH) in a young individual with significant neurological deficit. SSEH is a rare disease, accounting for less than 1% of all spinal canal lesions. Possible risk factors for SSEH include anticoagulant use, underlying coagulopathy, arteriovenous malformations, vertebral hemangioma and hypertension. However, 40% to 60% of cases do not have identifiable risk factors. Treatment is surgical but asymptomatic patients can be managed conservatively. Prognostic factors affecting neurological outcome in SSEH are; preoperative neurologic deficit, the interval of progression of symptoms and time window between presentation and surgical decompression. Our experience is consistent with the reported literature and further endorses that timely surgical intervention can improve neurological outcome.
Learning Objectives	1. Identify the symptoms of presentation of spinal canal occupying lesions. 2. Identify risk factors for developing symptomatic SSEH. 3. Learn the timely treatment of SSEH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Transverse Sinus Thrombosis presenting as new onset seizure

#22

Presenting Author	Eduardo Moreno MD, Internal Medicine Resident PGY2, Brandon Regional Hospital HCA
Co-authors	Zarin Pirzada MD1, Internal Medicine Resident PGY1, Brandon Regional Hospital HCA; Rajesh Sonani, MD1, Internal Medicine Resident PGY1, Brandon Regional Hospital HCA; Maria del Mar Constain MD, Cauca University, Colombia; Yvonne Braver MD, FACP1, Internal Medicine Resident PGY1, Internal Medicine Program Director, Brandon Regional Hospital HCA
Category	**Medicine & Medical Subspecialties**
Title	**Transverse Sinus Thrombosis presenting as new onset seizure**
Abstract	Cerebral vein and dural sinus thrombosis (CVT) are uncommon, widespread use of MRI and rising awareness allow increased recognition. CVT is more common in younger women, with female to male ratio of 3:1. CVT is seen in antiphospholipid syndrome, polycythemia, thrombocythemia, malignancy, inflammatory bowel, OCP use and procoagulant mutations. A 39 year old caucasian female with history of migraine, was admitted following blurred vision and a tonic/clonic seizure at work. One week prior, she developed severe, right sided, neck pain following a sneeze. The sharp shooting pain, radiated down the neck with nausea but no emesis, photo- or phono- phobia. She denied trauma, stroke, hypertension, tobacco or drug abuse. She took oral contraceptives. Vitals and exam were unremarkable. An initial CT head showed left frontal extracranial soft tissue swelling and hematoma, with a small sub- arachnoid hemorrhage in the right lobe and mild brain swelling. Subsequently, an MRI showed a right transverse sinus thrombosis. An MRV showed a dural venous thrombus within the right transverse sinus, sigmoid sinus and internal jugular vein. An intraparenchymal hemorrhage in the right temporal lobe, was concerning for hemorrhagic venous infarction. Labs showed microcytic, hypochromic anemia Hb 7.7 mg/dl, thrombocytosis, positive ANA (1:160 homogeneous pattern), positive SM/RNP antibodies (4.6 AI). ESR, CRP, and prothrombin mutations were normal. Thrombectomy or tPA were not indicated, and she was treated with low molecular weight heparin and Levetiracetam. She remained asymptomatic and was discharged on warfarin.
Learning Objectives	1. Identify sign and symptoms of a possible cerebral sinus or vein thrombosis (CVT) 2. Choose the right diagnostic media to identify a CVT 3. Provide the adequate treatment of patient with diagnosis of CVT and identify the possible complications

Implications of Early Recognition of Complicated Post-partum Aortic Dissection with Rupture

#23

Presenting Author	Patel Chirag, MD, Resident, Internal Medicine, Oak Hill Hospital, Brooksville, FL
Co-authors	Goel Arushi, MD, Resident, Internal Medicine, Oak Hill Hospital, Brooksville, FL Muddassir Salman, Program Director, Internal Medicine, Oak Hill Hospital, Brooksville, FL
Category	**Medicine & Medical Subspecialties**
Title	**Implications of Early Recognition of Complicated Post-partum Aortic Dissection with Rupture**
Abstract	Introduction: Other than Marfan syndrome, pregnancy is identified as an independent risk factor for peri-partum as well as post-partum aortic dissection. Postpartum aortic dissection is a rare lethal event which can appear anywhere within 6 weeks to 1 year following either vaginal or cesarean delivery. Complicated type B dissections, defined by rupture, end organ ischemia, aneurysmal aortic expansion, dissection extension, or continued pain. Case Presentation : 24 y/o obese Caucasian female who was post-partum day 4 was bought to the ER at around 8 a.m. with chief complaints of lower back pain of 7/10 severity, intermittently radiating up the towards the neck associated with some shortness of breath. She was hemodynamically stable and only abnormalities on the labs were Hgb 9.7 and elevated CRP 8. CXR was unremarkable and CT abdomen/pelvis without contrast showed post-surgical changes in the abdominal wall, pelvis and uterus secondary to C section. She was given IV Morphine for analgesia, and discharged home on some NSAIDS. She came back to the ER same day 12 hours later with worsening mid-upper back pain and significant respiratory distress. Her Hgb had dropped to 6.1. WBC was 16.9, lactic acid was 8, BNP 5121. CXR showed Moderate to large left sided pleural effusion. ECHO was ordered to r/o peripartum cardiomyopathy. CT angiography was done to r/o PE, which revealed no PE but descending thoracic aortic dissection without an aneurysm extending into the abdomen with active aortic leak/contrast extravasation with mild right and moderate to severe left hemithorax. Final/Working Diagnosis: Post-partum type B Aortic dissection with rupture. Management/Outcome/and or Follow-up: Cardiology and Cardiothoracic surgery was consulted. The patient was intubated and started on mechanical ventilation. 3units PRBC was ordered. Cardiothoracic surgery recommended to transfer the patient to tertiary center for Endovascular graft stent placement and transfer process was initiated, but subsequently patient went into PEA and expired.
Learning Objectives	Identify post-partum patients at high risk for aortic dissections, at need for early diagnosis and prompt initiation of early invasive treatment with either open or endovascular approach to decrease mortality rates.

Neurosarcoidosis

#24

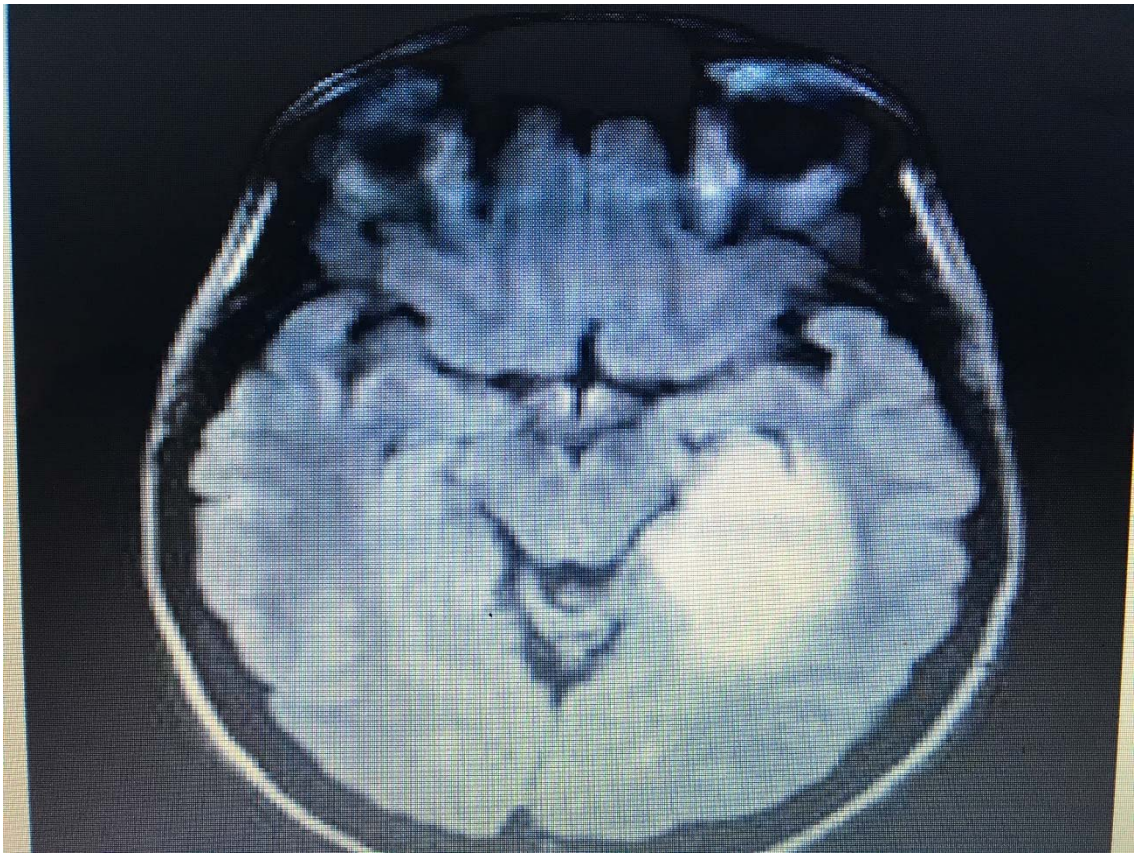
Presenting Author	Ateeq Mubarik, MD, Resident physician, Internal medicine, Oak Hill Hospital, Brooksville, FL
Co-authors	Monica Felix
Category	**Medicine & Medical Subspecialties**
Title	**Neurosarcoidosis**
Abstract	INTRODUCTION First described in 1877 by Dr. Hutchison, sarcoidosis is a multisystem condition that mostly affects the lungs, skin and lymph nodes. These organs are infiltrated with abnormal inflammatory cells that clump together forming granulomas. The exact pathophysiology is still unknown, and symptoms can be vague. Frequently observed in Northern Europe, Japan and USA, it is more frequent and more advanced in African Americans. The age of presentation is usually around 30-40 years of age. The most common form of sarcoidosis is pulmonary with a 90% occurrence. The extrapulmonary manifestations o comprise of the other 10%, and are often present with pulmonary sarcoidosis. Of that 10%, neurosarcoidosis represents about 5-10 % and is often found on autopsy. We describe a case of neurosarcoidosis below. CASE PRESENTATION RS is a 76-year-old man who presented to our facility with altered mental status. He was previously discharged after he was found with obstructive uropathy due to right 6 mm uretrolithiasis at UPJ, and complicated UTI with E. faecalis and underwent J-stent placement. His family who were at bedside state that he was increasingly confused following his discharge. He had chronic atrial fibrillation, which was rate controlled, chronic kidney disease stage 4 with baseline creatinine 2.7 and recurrent complicated UTI. On admission, vital signs were within normal limits. On physical examination his GCS was 13/15 and he was somnolent and oriented to person and place. Initial work up showed creatinine of 4.7, hypercalcemia with a corrected calcium of 11.5. Urinalysis showed funguria and red blood cell cast, consistent with acute glomerulonephritis. CXR was unremarkable and CTA chest was done and it was negative for any cardiopulmonary pathology. CT scan and MRI of brain were done and showed no acute intracranial pathology. He was started on IV fluids and IV Diflucan. During his stay, Urologist performed lithotripsy and stone extraction. After resolving the obstruction, his renal function did not improve nor did his mental status. Due to a mild abnormality in this liver function test, an ultrasound of his right upper quadrant was obtained and showed liver cirrhosis. His Hepatitis profile showed positive Hepatitis C antibody but PCR for DNA was negative. ANA, Anti smooth and Anti mitochondrial and anti-centromere came back positive with elevated ammonia. The patient was subsequently started on Lactulose with average 5 bowel movements per day. Later on the ammonia was resolved but still the condition remain same. The patient was founded with paraproteinemia with Hypercalcemia and renal failure. The UPEP and SPEP was done showed high levels of lambda and kappa chains but not consistent multiple myeloma. ACE level were also elevated along with 1, 25-dihydroxy vitamin D. A bone biopsy was done showed non- caseating granulomas and plasma cells were less than 10%. A liver biopsy was also done performed which showed non-caseating granulomas. Renal biopsy was not done due to GFR less than 10 consistent with renal fibrosis due to CKD. His clinical presentation was attributed to neurosarcoidosis, Rheumatology was consulted and he was started on Prednisone, which improved his condition. DISCUSSION The first case of neurosarcoidosis (NS) was described in 1905, and is usually associated with the pulmonary form of sarcoidosis. It can affect the central nervous system as well as peripheral nervous system later in the disease. The clinical presentations can be neurological (with facial nerve being the most affected, endocrine (due to pituitary infiltration) and psychiatry (depression, psychosis and altered mentation). The two sets of criteria for diagnosis, each with the definition of confirmed NS, probable NS and possible NS. Due to lack of MRI brain or nerve biopsy, he was at a probable NS. With

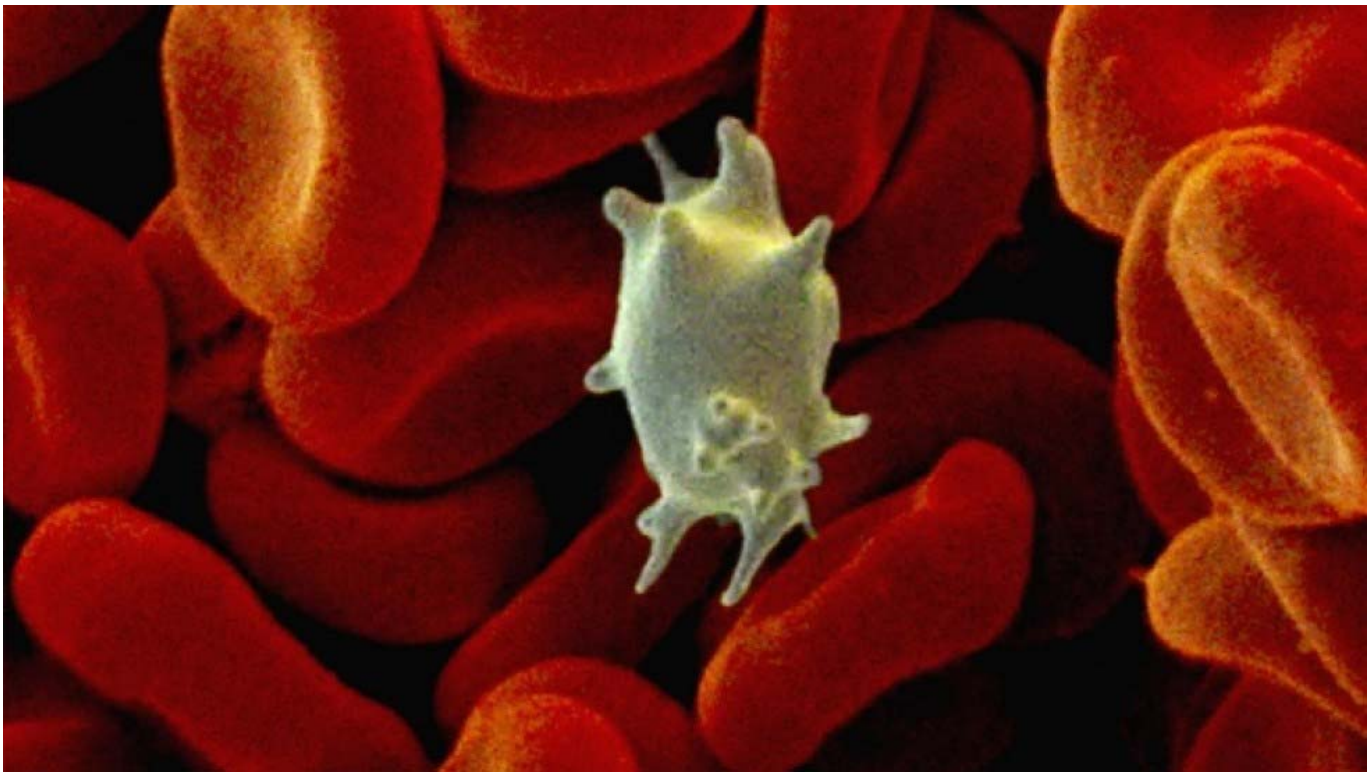
	his response to corticosteroids evidenced by improved mentation, we are confident that he will make progress.
Learning Objectives	Identify neurosarcoidosis without pulmonary manifestations

Temporal lobe glioma presenting with symptoms suggestive of post-traumatic stress disorder and complex-partial seizures

#25

Presenting Author	Zarin Pirzada, MD, Medical Resident PGY-1 Internal Medicine, Brandon Regional Hospital, FL
Co-authors	Alamelu Murugappan MD, Neurologist affiliated with Brandon Regional Hospital, Brandon, FL Talha Badar MD, PGY-3 Internal Medicine Resident, Brandon Regional Hospital, Brandon, FL
Category	**Medicine & Medical Subspecialties**
Title	**Temporal lobe glioma presenting with symptoms suggestive of post-traumatic stress disorder and complex-partial seizures.**
Abstract	Abstract -Back Ground: Partial seizure often poses a diagnostic dilemma when presented concomitantly with psychiatric symptoms. The scenario becomes more challenging when the suspected seizure disorder could be secondary to brain tumor. -Case: We present a 32 year old Caucasian lady who presented to the neurology clinic with episodes of unpleasant flash back memories since 2 years related to her father who died 2 years ago. Each episode lasted for 30-60 seconds, with a frequency of 0-4 episodes every day. According to the patient, she could carry out conversation during these episodes but had no control over the events. She denied history of focal weakness, loss of consciousness, headache or fever. A physical examination was essentially within normal limits apart from essential tremors on outstretched hands. Patient's baseline work up including CBC, CMP, TSH and Urine drug screen was within normal limits. Electroencephalogram did not show any epileptiform discharge. MRI of brain revealed 5.7 cm area of abnormal signal intensity on T2/Flair involving the medial aspect of left temporal lobe suggestive of low-grade astrocytoma. She was started on 500 mg of Levetiracetam twice daily resulting in 90% decrease in frequency of her symptoms. Patient was referred to neuro-oncology for further management. -Discussion: Here we report an unusual case of a young lady with large temporal lobe mass with signs and symptoms overlapping between PTSD and partial seizures. Patient history was puzzling in a sense that her symptoms started after a tragic life event, and diagnosing it as a PTSD was a strong possibility. On the other hand our patient did not present with typical neurological symptoms for seizure such as jerky movement, automatism or loss of consciousness. But disturbance of awareness made us suspicious for temporal lobe epilepsy. EEG did not show any epileptiform discharge however one normal EEG cannot rule out epilepsy. MRI brain for evaluation of presumed unprovoked seizure was done as per guidelines, which revealed temporal lobe mass suggestive of low-grade astrocytoma. -Conclusion: Our experience warrants more vigilant approach in evaluation of patient with suspected partial seizures with overlapping psychiatric symptoms.
Learning Objectives	-Conclusion: Our experience warrants more vigilant approach in evaluation of patient with suspected partial seizures with overlapping psychiatric symptoms.

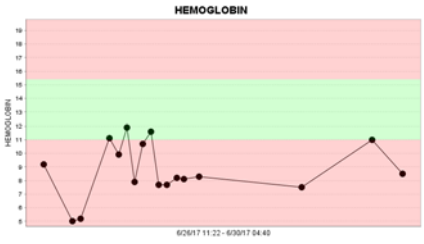


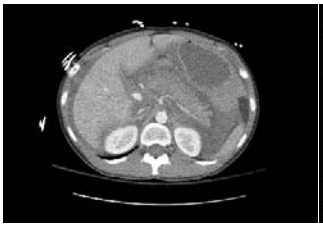


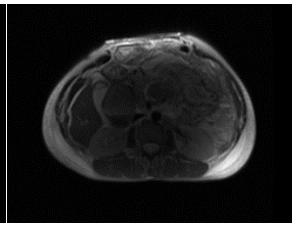
Spontaneous of anterior pancreatic artery mimicking acute pancreatitis

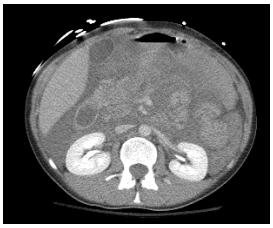
#26

Presenting Author	Berenice A. Garcia, MD, resident, internal medicine, University of Central Florida - Ocala Regional Medical Center, Ocala, FL
Co-authors	Archana Machavarapu, M.D., Michelle P. Ngyuen, M.D., Irina V. Moulete, M.D., Steven H. Quach, M.D., Srin Dantuluri, M.D.
Category	**Medicine & Medical Subspecialties**
Title	**Spontaneous of anterior pancreatic artery mimicking acute pancreatitis**
Abstract	Here we present a case of a 35 year-old Caucasian female with history of heroine abuse who presented to the hospital for abdominal pain for one week that suddenly became unbearable. Abdominal pain was associated with nausea and vomiting. Patient reports seen by ED doctor three times in the past week and being discharged on pain medication. On admission, she was found to have a white blood cell count of 26.9 thou/mm^3, hemoglobin of 9.2 g/L, lipase 53 U/L, and quantitative HCG was less than 2.4 mIU/mL. Initial physical exam, patient was hemodynamically stable with diffused abdominal tenderness. CT of abdomen and pelvis revealed large amount of free ascites throughout the abdomen and pelvis with mild enhancement of the pancreas mimicking acute inflammation of the head of the pancreas. Seven hours later, repeat hemoglobin was 5.0 g/L. Physical examination showed that patient was pale with distended abdomen with guarding and rebound. Surgery was consulted and patient was taken to operating room for emergent exploratory laparotomy. Exploratory laparotomy noted massive internal bleed requiring 8 units of red blood cell transfusions, 2 units of fresh frozen plasma, and 1 unit of platelets. Source of bleed was found to be from anterior pancreatic artery. Magnetic resonance cholangiopancreatography with 3D rendering revealed a mass posterior inferior to the pancreatic neck and body. Etiologies leading to spontaneous retroperitoneal hemorrhage include tumors, renal cell carcinomas, angiomyolipomas, aneurysms, and inflammatory erosive processes. In this case, etiology of retroperitoneal bleeding has not been clearly established. Regardless of etiology, early diagnosis and prompt treatment are of paramount importance in successful management of this rare event. Suspect spontaneous retroperitoneal hemorrhage in patients presenting as acute pancreatitis.
Learning Objectives	Although rare case, always be suspicious of retroperitoneal bleed in patients with acute abdomen





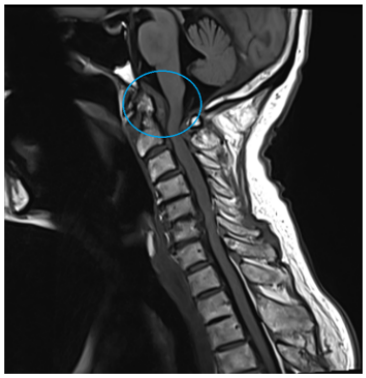


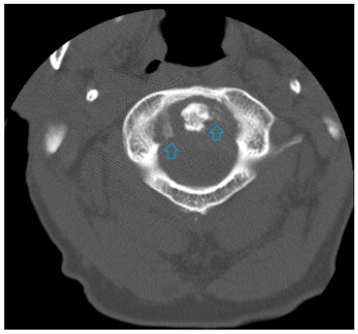


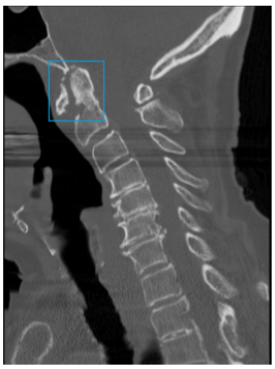
Intractable Neck Pain in an Elderly Woman from Wearing a Crown

#27

Presenting Author	Byung Hoon Ban, DO, Resident Physician, Department of Medicine, University of Tennessee Chattanooga, Chattanooga, TN
Co-authors	Jayne Crowe MD, Assistant Professor, Department of Rheumatology, University of Tennessee Chattanooga, Chattanooga, TN
Category	**Medicine & Medical Subspecialties**
Title	**Intractable Neck Pain in an Elderly Woman from Wearing a Crown**
Abstract	Introduction: Neck pain is a common presentation in the primary care setting, especially in the elderly. Crowned dens syndrome is a rare entity oftentimes confused for other etiologies of neck pain such as osteoarthritis, rheumatoid arthritis, meningitis, etc. This case underlines the importance of further evaluation and testing in patients with intractable neck pain despite optimal medical management. Case Presentation: An 84-year-old Caucasian female with a history significant for cervical degenerative disc disease is referred to rheumatology for positive ANA 1:40 with speckled staining pattern and chronic neck pain for years that has worsened recently. Her neck pain improved with NSAIDs, hot showers and epidural steroid injections by her orthopedic surgeon. She endorsed morning stiffness that lasts 20 minutes in her hips, knees and lower back. A recent cervical spine x-ray noted moderately severe degenerative disc disease with evidence of erosion at the atlantooccipital joint. Physical examination elicited left cervical paraspinal tenderness and limited cervical range of motion due to pain. Labs were unremarkable, including normal CBC, CMP, ESR, CRP and rheumatoid factor and negative antibody tests for autoimmune diseases. Further evaluation with MRI revealed erosive changes at C1-C2 with a large partially calcified soft tissue pannus exerting significant mass effect on the cervical medullary junction and proximal cervical cord. Final Diagnosis: Crowned dens syndrome (periodontoid calcium pyrophosphate dehydrate crystal deposition disease) Management/Outcome/Follow Up: Despite daily NSAID use, the patient continues to experience worsening neck pain. She is currently on a prolonged prednisone taper with instructions to avoid physical therapy and manipulation of the cervical spine. She has been referred to neurosurgery for evaluation for surgical decompression due to instability of her symptoms despite appropriate medical therapy.
Learning Objectives	1. Recognize crowned dens syndrome as a rare cause of neck pain that is oftentimes confused for osteoarthritis, rheumatoid arthritis, meningitis, etc. 2. Review diagnosis and treatment approaches of crowned dens syndrome







EXAMINING "HIGH NORMAL" PLATELET COUNT AS A POTENTIAL CANCER MARKER IN PRIMARY CARE

#28

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Category	**Bioethics & Medical Education**
Title	**EXAMINING "HIGH NORMAL" PLATELET COUNT AS A POTENTIAL CANCER MARKER IN PRIMARY CARE**
Abstract	Background: Thrombocytosis (platelet count >400×109/L) is an early marker of undiagnosed cancer, with a positive predictive value (PPV) of 11.6% in men and 6.2% in women over age 40. The PPV of platelet counts in the "high normal" range ((325–399)×109/L)) is unknown. This study investigates the PPV of "high normal" platelet counts for cancer, particularly the platelet count with a PPV of 3%, to meet National Institute for Health and Care Excellence criteria for referral of suspected cancer. Methods: The study population was 10,000 patients in the Clinical Practice Research Datalink with an index platelet count ranging >325×109/L to <400×109/L measured between 01/01/2000 and 12/31/2013. Exclusion criteria were: age <40 years and pre-existing cancer. The population was stratified as follows: Cohort 1 (325–349)×109/L, Cohort 2 (350–374)×109/L and Cohort 3 (375–399)×109/L. Patients were followed-up for 1 year after the index platelet count by searching their records for diagnostic cancer codes. The number of cancer diagnoses was reported, and the PPV estimated as the percentage of patients in the cohort who were diagnosed with cancer. Results: The number of patients included in analysis was 2,704. The numbers of cancers diagnosed during follow-up in Cohorts 1–3 are reported in Chart 1, along with the PPV. PPV rose with increasing platelet count, from 2.6% in Cohort 1 to 5.1% in Cohort 3. The PPV was consistently higher for men than women (Chart 2). The most common cancers diagnosed were of the cecum, colon, and/or rectum in Cohorts 1 and 2, and of the colon and/or rectum in Cohort 3. Conclusions: The platelet count with a PPV of 3% for underlying malignancy lies within the "high normal" range for both sexes. Referrals for cancer investigation may be warranted in patients with platelet counts below the level of thrombocytosis.
Learning Objectives	1 Realize the risk for undiagnosed cancer associated with "high normal" platelet counts • How sex impacts this risk • Analysis of prior CBC results- is this the patient's first high normal reading? 2 Contemplate the necessity of a referral for a patient with their first "high normal" platelet count • Who is the proper medical specialist for referral? • Does the patient have a significant family history? • Does the patient have symptoms associated with cancer? (examples include unexplained weight loss, fatigue, pain, nausea/vomiting, or bleeding)

Upon completion of this lecture, learners should be better prepared to evaluate risk for underlying cancer in patients based on their platelet counts and sex. Learners should consider the proper specialist for referral with respect to the patient's medical history, family history, and presenting symptoms. Additionally, learners should recognize the value of this study in a primary care setting, in which routine blood tests (ex. CBCs) are ordered frequently.

Lamivudine Induced Anemia

#29

Presenting Author	Michelle Phuong Nguyen, MD, Internal Medicine Resident, Department of Medicine, University of Central Florida/Ocala Regional Medical Center, Ocala, FL
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Category	**Medicine & Medical Subspecialties**
Title	**Lamivudine Induced Anemia**
Abstract	We present a case of a 45 year old female from a correctional facility with human immunodeficiency virus infection and acquired immune deficiency syndrome diagnosed with lamivudine induced anemia complicated by community acquired pneumonia (CAP). The patient presented to our hospital for fatigue, shortness of breath, fever and was found to have a hemoglobin of 5.8g/dL. She was treated for CAP two months prior and appeared to have recurrent CAP. The patient had been on abacavir, dolutegravir, and lamivudine for HIV treatment. Initial chest CT showed bilateral airspace disease but repeat chest CT showed right lower lobe air space disease with an associated effusion. She received 2 units of packed red blood cells (pRBC) and was treated with antibiotics for CAP. She had undetectable HIV RNA copies, but CD4 count was 198 cell/mcL. The patient was started atorvaquone for empiric antibiotic against pneumocystis pneumonia. Fever resolved but hemoglobin continued to drop, requiring a total of 4 units of pRBC during hospitalization. Work up for anemia showed elevated ferritin, low iron serum, low total iron binding capacity, low iron saturation, normal vitamin B12 and folate, elevated lactate dehydrogenase, high haptoglobin, and normal bilirubin. Reticulocyte index was 1.3, suggestive of hypoproliferative anemia. Antinuclear antibody was negative. Furthermore, hepatitis panel, cytomegalovirus, Epstein Bar virus were negative. The patient also had elevated parvovirus B12 IgG, but negative IgM. Bone marrow biopsy was suggestive of inflammatory process, but negative for malignancy. The patient also had lymphadenopathy and inguinal lymph node biopsy was negative for malignancy. Bone marrow culture, lymph node culture, blood culture showed no growth. Without a clear etiology for anemia, we decided to switch lamivudine to tenofovir to rule out drug induced anemia. Fortunately, her hemoglobin improved in a few weeks, indicating lamivudine as a potential cause of her anemia.
Learning Objectives	Upon completion of this lecture, learners should be better prepared to recognize lamivudine induced anemia once all other causes have been ruled out.

Shortness Of Breath, Finding The Hidden Culprit

#30

Presenting Author	Mohammad Nawaf Sadeddin, MD, Internal Medicine Resident, Department of Medicine, Brandon Regional Hospital, Brandon, Florida
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Category	**Medicine & Medical Subspecialties**
Title	**Shortness Of Breath, Finding The Hidden Culprit**
Abstract	Introduction: Methemoglobinemia, an altered state of hemoglobin in which the ferrous iron (Fe++) of the heme molecule is oxidized to a ferric state (Fe+++), unable to bind oxygen, resulting in impaired tissue oxygenation. Presentation: A previously healthy 67 year old Caucasian male presented with acute abdominal pain, due to small bowel obstruction, underwent diagnostic laparoscopy with lysis of adhesions. On Post op day 5, his oxygen saturation (SpO2) decreased to 80% on 4L nasal cannula (NC). He denied chest pain, shortness of breath, dizziness, palpitations, cough, fever, or chills. Vitals were; pulse oximetry 80%, temperature 36.8°C, pulse 105/min and regular, blood pressure 140/73 and respiratory rate 18. On physical exam, he was alert, awake, oriented, receiving oxygen through NC, a Nasogastric tube (NG) was in place, and sitting comfortably with no signs of respiratory distress or cyanosis. Lung examination revealed mild bilateral decreased breath sounds. With SpO2 remaining low, he was switched to non-rebreather facial mask with high flow oxygen on 15L, however, SpO2 remained at 89%. Differential diagnosis included pulmonary embolism, healthcare acquired pneumonia, and pulmonary edema. CBC showed WBC 14.1 and Hgb 11.1. Chest X-ray, KUB, and ABG were ordered, which showed no acute process in the lungs, with normal NG tube position in the stomach. ABG showed pH 7.48, PCO2 39, PO2 422, Bicarbonate 29, and Methemoglobin level 23. Diagnosis/Management: Upon reviewing his medications, he received Benzocaine spray numerous times, for throat discomfort over the last two days, and diagnosis of acute acquired Methemoglobinemia was made. He was given IV Methylene blue (MB) 1 mg/kg x 1 over five minutes with rapid improvement in SpO2. Benzocaine was discontinued, and repeat ABG showed methemoglobin level 5.1. He was saturating well, switched back to NC, with SpO2 stable at 96%.
Learning Objectives	Most cases of Methemoglobinemia are acquired secondary to an inciting agent. Use of Benzocaine topical spray is associated with severe forms of Methemoglobinemia which can be life threatening if Methemoglobin levels are >50%. This case emphasizes the fact that acquired Methemoglobinemia secondary to topical anesthetics can be overlooked, and could potentially be fatal, if not promptly recognized.

Arterio-Pancreatic Syndrome

#31

Presenting Author	Mohammed Megri, MD. Internal Medicine residency, Marshall University, Huntington, WV.
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Category	**Medicine & Medical Subspecialties**
Title	**Arterio-Pancreatic Syndrome**
Abstract	Introduction: Acute pancreatitis is a single-organ disorder that has multi-organ sequelae. commonly caused by stones, alcohol, medications and secondary to hypertriglyceridemia. Splanchnic venous thrombosis is one of the complications that could happen mainly with a necrotic type. Acute arterial thrombosis is very rare complication and is seldom reported in literature. We present a young patient with moderate acute pancreatitis and Diabetic ketoacidosis (DKA) complicated with acute bilateral lower limb thrombotic ischemia. Case Presentation: A 43-year-old male. Presented to the emergency department complaining of polyuria, polydipsia, generalized fatigability, nausea and vomiting for one week with no abdominal pain. Past medical history is significant for gastroesophageal reflux disease. No past surgical history. No allergies. He is a former smoker, quit 15 years before his presentation. On presentation he was hemodynamically stable with unremarkable examination. Blood work showed severe DKA with renal impairment and high amylase and lipase. CT scan of the abdomen without contrast showed mild edematous interstitial pancreatitis. Medical management and fluid support was started. On the second day patient became obtunded, with worsening of lipase level and started to show hemodynamic instability. Daily exam showed signs of poor perfusion bilateral on lower limbs. It was confirmed by ultrasound Doppler and CT angiography that showed complete obstruction of bilateral external iliac arteries. The patient was not a good candidate for any interventional therapy and bilateral below knee amputation was performed. Conclusion: Acute lower limb ischemia is a rare manifestation and a complication of acute pancreatitis. The acute limb ischemia is likely triggered by the coagulation disorders as a sequelae of acute pancreatitis and DKA as it is uncommon for acute limb ischemia to present bilaterally, especially in the absence of a history of claudication and cardiovascular or vasculopathic risk factors. It is important to treat the pancreatitis aggressively so that the patient can be optimized medically prior to definitive treatment for the acute limb ischemia to prevent further complications. We are presenting this case to emphasize the importance of considering the occurrence of this complication in patient with pancreatitis and therefore providing the earliest appropriate intervention possible.
Learning Objectives	We are presenting this case to emphasize the importance of considering the occurrence of acute lower embolic ischemia with acute pancreatitis regardless of the severity, and to explain the most possible pathogenesis of systemic atrial thrombosis. therefore, providing the earliest appropriate intervention possible.

A Rare Case of Diffuse Large B-Cell Lymphoma Arising from the Uterus

#32

Presenting Author	Patricia Kachur, MD. PGY2 Internal Medicine Resident. Ocala Regional Medical Center, Ocala, FL
Co-authors	Ketan Doshi, MD. Associate Professor, Department of Oncology, Ocala Regional Medical Center, Ocala, FL
Category	**Medicine & Medical Subspecialties**
Title	**A Rare Case of Diffuse Large B-Cell Lymphoma Arising from the Uterus**
Abstract	Introduction Primary malignant lymphoma of the genital tract is a rare disease that occurs in only 1% of extra-nodal lymphomas. About 150 cases have been documented worldwide to date. Common sites of occurrence include the ovary, uterus, cervix, vagina, and vulva. Primary diffuse large B-cell lymphoma (DLBCL) of the uterus is often confused with leiomyoma as the presentation is very similar: both are characterized by vaginal bleeding and a large uterine cavity mass. The following is a review of one such case. Case Presentation 69yo female, postmenopausal of 10 years, G2P2 and PMH of triple negative breast cancer status post lumpectomy followed with chemoradiation presented with sudden onset of vaginal bleeding. Imaging showed diffuse uterine enlargement. Pathology of the mass revealed diffuse large B cell lymphoma with immunoblastic features involving the lower portion of the uterus – stage IE. PET/CT showed disease confined to the uterus only. Patient was started on 3 cycles of rituximab with cyclophosphamide, hydroxydoxorubicin, vincristine and prednisone (R-CHOP) followed by total abdominal hysterectomy with bilateral salpingo-oophorectomy, following which pathology indicated no residual lymphoma and a final round of R-CHOP. Biannual imaging 2 years out continues to show that the disease in remission. Final Diagnosis Diffuse Large B-cell Lymphoma Arising from the Uterus Outcome/Discussion DLBCL is in the uterus is a rare disease that mimics symptoms of leiomyosacroma or cervical carcinoma. Most common presentations of the disease include vaginal bleeding and abdominal bloating and diagnosis is typically made with immunohistochemical analysis. Hysterectomy is usually not recommended and treatment includes R-CHOP chemotherapy with or without radiation. In our case, hysterectomy was recommended after 3 rounds of chemotherapy as patient continued to be symptomatic. Increased awareness is needed as diagnosing such cases correctly can prevent unnecessary radical gynecological surgery that is usually indicated for primary cervical and vaginal lymphomas.
Learning Objectives	1. Diffuse large B-cell lymphoma arising from the uterus is rare and can have similar presentation to leiomyosacroma or cervical carcinoma. 2. Treatment for diffuse large B-cell lymphoma is usually limited to chemotherapy with or without radiation 3. Surgical intervention is usually unnecessary for treatment of diffuse large B-cell lymphoma

Electrolyte Imbalances after resection of pituitary macroadenoma

#33

Presenting Author	Steven Quach, MD, PGY-1 Resident, Department of Internal Medicine, University of Central Florida, Ocala, FL
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Category	**Medicine & Medical Subspecialties**
Title	**Electrolyte Imbalances after resection of pituitary macroadenoma**
Abstract	We present a case of a 69 year old female who developed diabetes insipidus (DI) and syndrome of inappropriate anti-diuretic hormone (SIADH) after she underwent transphenoidal and translabial approach for resection and excision of pituitary tumor. The patient originally presented with persistent nausea and vomiting. She has a past medical history of vertigo and migraines. CT of the brain showed a pituitary macroadenoma approximately 20mm in size. Brain MRI showed a macroadenoma with compression of the optic nerve. Patient did not have visual deficits. Frozen pathology revealed a benign pituitary adenoma. The patient was transferred to the intensive care unit for diabetes insipidus treatment. She had strict monitoring of intake and output as well as measurements of her sodium osmolality level. The patient later developed SIADH and progressive altered mental status. She was subsequently treated with hypertonic saline with close monitoring of sodium level to prevent osmotic demyelination syndrome. Her mental status improved within a few days. This case emphasizes the importance of monitoring electrolyte imbalance after intracranial surgery. The three common electrolyte imbalances associated with hypothalamic-pituitary dysfunction are DI, SIADH, and cerebral salt wasting syndrome (CSWS). Workup to differentiate the three diagnoses require understanding distinct mechanisms.
Learning Objectives	Differentiating between Diabetes Insipidus (DI), Syndrome of Inappropriate ADH (SIADH), and cerebral salt wasting syndrome (CSWS)

Unusual Manifestation of New Onset Atrial Fibrillation: Transient Global Amnesia

#34

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Category	**Medicine & Medical Subspecialties**
Title	**Unusual Manifestation of New Onset Atrial Fibrillation: Transient Global Amnesia**
Abstract	Transient global amnesia (TGA) is a clinical syndrome characterized by an abrupt onset of anterograde amnesia, often with some degree of retrograde amnesia. It lasts maximum 24 hours and is not associated with any focal neurological symptoms. Literature describes conditions that can rarely present as TGA, such as stroke, or intracranial neoplasia. However, the pathogenesis of this phenomenon remains unclear. Our case presents a common condition which first manifested itself in an unusual fashion, with typical symptoms of TGA. A 72 year-old female with remote history of stroke (as a complication of an angiogram, with residual visual impairment), hypertension, and diabetes mellitus type 2 was brought by family to the ER with sudden onset of forgetfulness. Husband reported the patient was in her usual state of health until she walked out of shower, when she strangely kept asking “Why is my hair wet?” On our evaluation, patient appeared anxious and repeatedly asked “Why am I here?” She denied any other symptoms. BP 131/90, HR 140, temperature 36.7 C, O2 saturation 100% RA. Physical exam was unremarkable except for left homonymous hemianopia, a known feature post stroke. EKG revealed new atrial fibrillation with rapid ventricular response. Labwork was normal. Brain CT scan without contrast showed an old right occipital ischemic infarct. The treatment with diltiazem was initiated, and a few hours later, patient’s rhythm converted spontaneously to sinus. Upon the following evaluation, patient was asymptomatic, had intact cognition, but couldn’t recall any events of past seven hours. Other complementary exams were done: EEG, echocardiogram and US-Doppler of carotids which were all negative. Brain MRI revealed chronic changes. Patient was discharged home on aspirin and propafenone, in addition to her usual home medications.
Learning Objectives	Although the etiology is not identified in most cases, TGA is considered to be a benign, self-limited condition with a good prognosis; hence, it has been recommended not to pursue any investigations unless a strong suspicion of an alternative diagnosis exists. Whether our patient had an initial hemodynamic compromise leading to cerebral hypoperfusion, or small vessel embolic strokes that were not identified by MRI, we can only speculate. Nevertheless, our case illustrates the importance of detailed evaluation of patients presenting with TGA because its results govern our therapeutical management.

Late development of saddle nose deformity in patient with relapsing polychondritis

#35

Presenting Author	Late development of saddle nose deformity in patient with relapsing polychondritis Irina V Moullette, MD, PGY -1 Resident- Internal Medicine UCF/HCA- GME consortium (Ocala Health).
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Category	**Medicine & Medical Subspecialties**
Title	**Late development of saddle nose deformity in patient with relapsing polychondritis**
Abstract	Relapsing polychondritis (RPC) is a rare potentially lethal autoimmune disease characterized by recurrent episodes of inflammation of cartilaginous tissue. It affects ~3.5/million in the US. The average onset of diagnosis is 40-50 years of age. Since no specific diagnostic test is available currently, RPC must be diagnosed clinically. Here we present a patient with a mystery diagnosis due to limitation of symptoms and unusual presentation. A 78 y/o F with PMH of Sjogren's presented to the clinic with nonhealing sores and ulcers of the scalp, face and lower extremities of few months duration that has been evaluated by dermatologist. In addition for the past two years patient had been followed by an Ophthalmologist for impending perforation of a corneal ulcer. Evaluation by rheumatologist determine the skin ulcers were pyoderma gangerosum. Patient was started on Doxycycline and topical Tacrolimus ointment which improved her symptoms. Over 2.5 years after the initial start of visual symptoms, patient developed a saddle nose deformity without any other symptoms. It is often very difficult to diagnose RPC since there are no diagnostic tests available at this time. Patient can develop a wide arrays of symptoms that requiring treatment of many specialists, as in our patient. The patient may develop multi-system involvement especially those involving the cartilages, since it affects all types of cartilage including ear, nose, peripheral joints, and tracheobronchial tree. Unfortunately, a standardized therapeutic protocol for RPC has not been established because the disease is rare, has a wide diversity of presentation, and an unpredictable rate and course. Since out patient has chronic inflammation, so methotrexate or azathioprine will be the choice. However, RPC manifests as a fluctuating - slowly progressive inflammatory disease in various organs.
Learning Objectives	To recognize with multi-system involvement especially those involving the cartilages and to keep relapsing polychondritis as a differential and referral to rheumatologist for further workup of vasculities, malignancy, and other autoimmune diseases. Realize that polychondritis can cause inflammation to other proteoglycan-rich structures, such as eyes, heart, blood vessels and potentially can be lethal.

Serotonergic Agents in the Treatment of Depression in a MELAS Patient: A Case Report

#36

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Category	**Mental Health**
Title	**Serotonergic Agents in the Treatment of Depression in a MELAS Patient: A Case Report**
Abstract	INTRODUCTION Mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes (MELAS) is a maternally inherited disorder of the mitochondria initially characterized as a distinctive syndrome with a progressive course of multiorgan dysfunction and gradual neurocognitive decline. This disease arises from inherited mutations in the mitochondrial deoxyribonucleic acid (DNA) that results in abnormalities of transfer ribonucleic acid (tRNA) and subsequent disruption of mitochondrial respiration. Clinical severity and course of MELAS can vary markedly between patients due to polymorphisms in the inherited gene and the principle of heteroplasmy- the random assortment of mutated mitochondria during oogenesis. Alterations in the mitochondrial energetics of brain tissues has a well-described association with mood and emotional disturbances in diseases such as schizophrenia. It is probably not coincidental that depression and other psychiatric disorders are also commonly reported in mitochondrial disease patients who survive into adulthood. While the link between mitochondrial diseases and comorbid psychiatric disorders has been well described, disappointingly few publications discuss effective treatment options for these patients. We report a case of Major Depressive Disorder (MDD) in a patient with MELAS that demonstrated excellent response to duloxetine. CASE PRESENTATION Mrs. S, a 46-year-old woman, was in her usual state of health until she had a stroke while working as a flight attendant flying home from South America. Prior to this episode, Mrs. S had never had a known stroke. Her providers suspected a silent CVA which had preceded seizures she had while pregnant with her first child and with her second child. Due to her recurrent seizures, Mrs. S received a full work up and at 36 years old she was diagnosed with MELAS. During our outpatient visit, Mrs. S reported 6 months of progressively worsening depressed mood with symptoms such as insomnia, difficulty maintaining sleep, excessive worry, low energy, difficulty with short term memory, and psychomotor agitation. On Mental Status Exam (MSE), the patient was appropriately dressed and calm throughout the visit. She made good eye contact and her speech was of normal rate, volume and tone. She described her mood as "deflated" with a congruent affect. Her thought process was linear and logical without abnormalities of thought content. She denied visual and auditory hallucinations in addition to suicidal and homicidal ideations. Judgement and insight were both appropriate. Physical exam revealed a well-developed, well-nourished patient with no significant clinicopathologic findings. FINAL DIAGNOSIS Mrs. S presented with symptomatology suggestive of a diagnosis of MDD in the context of a mitochondrial disease. This patient presented with 6 months of progressively worsening depressed mood accompanied by sleep disturbance , low energy, difficulties concentrating, excessive worrying,

	memory deficits, and psychomotor agitation. Mrs. S denied any somatic symptoms but became highly preoccupied with her underlying medical disturbances. OUTCOME In this report, we show that we successfully treated Mrs. S with the serotonin-norepinephrine reuptake inhibitor (SNRI) duloxetine. Duloxetine is an antidepressant that blocks the reuptake of both serotonin and norepinephrine into the presynaptic neuron. Prior to being treated with duloxetine, our patient had never been trialed with antidepressant medication. After starting duloxetine, our patient no longer had depressive symptoms or neuropathic pain. It is possible that SNRI's are more efficacious for the treatment of MDD in patients with MELAS because they inhibit the reuptake of both norepinephrine and serotonin, but there exists no research into the efficacy of various medication classes in the treatment of MDD in the setting of mitochondrial disease, but our patient was relieved of her neuropathic pain and depressive symptoms. In summary, this report provides some evidence for the use of a SNRI in the treatment of MELAS-MDD.
Learning Objectives	Upon completion of this lecture, learners should be better prepared to: 1) Discuss the main diagnostic features of MELAS 2) Recognize the prevalence of psychiatric disorders that are comorbid with MELAS 3) Appreciate the apparent efficacy of SNRI in the treatment of mood disorders in the context of MELAS

Seroepidemiology of Hepatitis among Patients Receiving Care at Kasturba Hospital in Mumbai, India

#37

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Category	**Public Health & Environmental Medicine**
Title	**Seroepidemiology of Hepatitis among Patients Receiving Care at Kasturba Hospital in Mumbai, India**
Abstract	Background: This study sought to determine the sero-prevalence of hepatitis A, B, C, and E in patients seeking treatment for hepatitis at Kasturba Hospital in Mumbai India during 2014. We also assessed risk factors associated with hepatitis prevalence. Methods: We conducted a retrospective cross-sectional analysis of consecutive adult patients suspected of hepatitis infection who presented to Kasturba hospital, Mumbai in 2014. We extracted demographic and diagnosis information, and relevant lab values for each patient from an electronic database and log books. Sero-prevalence of hepatitis, A, B, C and E were calculated. Associations were tested using Pearson's chisquare. Results: Of 2644 patients included in the study, 55% (1454/2644) had a specific type of hepatitis confirmed by serologic testing. Hepatitis E was the most prevalent at 40% (1069/2644), followed by hepatitis A, B, and C at 17% (438/2644), 6% (158/2644), and 0.34% (9/2644) respectively. There were also many cases of co-infection with multiple types of hepatitis. Demographic data suggested higher prevalence of hepatitis among males 71% (1881/2644; p = 0.009); residents of urban areas 61% (1604/2644; p = 0.464); and those of lower economic status with unemployed accounting for 42% (1119/2644) and lower economic working class 56% (1486/2644) of cases. Conclusion: Hepatitis E and A were the most prevalent types suggesting that fecal-oral transmission is the most common mode of hepatitis transmission in this population. This is likely due to poor sanitation and living conditions as suggested by the high number of infected being of lower economic status.
Learning Objectives	1. Identify risk factors associated with each type of hepatitis 2. Discuss trends in laboratory findings associated with each type of hepatitis 3. Reflect on the prevalence of hepatitis in the region of Mumbai, India 4. Discuss future measures that may assist in reducing the burden of hepatitis infection

THE FEASIBILITY AND SATISFACTION OF USING TELEMEDICINE TO PROVIDE TERTIARY PEDIATRIC OBESITY CARE

#38

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Category	**Public Health & Environmental Medicine**
Title	**THE FEASIBILITY AND SATISFACTION OF USING TELEMEDICINE TO PROVIDE TERTIARY PEDIATRIC OBESITY CARE**
Abstract	The use of telemedicine in Pediatric tertiary obesity care is in its infancy. Although Telemedicine implementation in tertiary care has been tried, the satisfaction and outcome data is limited largely due to small sample sizes and the marked variation of methods and personnel by which the telemedicine technology is delivered and participants assessed. Few studies have examined the feasibility of telemedicine pediatric tertiary obesity care for both initial assessments and follow up visits. Few have assessed the perceptions of specialist provider, staff and patients at the same visit. None have utilized a telemedicine cart with customizable diagnostic medical equipment. The objective of our study was to determine the feasibility of using telemedicine to deliver Pediatric tertiary obesity care and to evaluate Patient/MD/Staff satisfaction. A prospective study was conducted in which 30 patients were evaluated by a specialist physician using telemedicine technology from February 2016 through August 2016. Inclusion criteria included children aged 10-18 years of age, and a BMI greater than 95%, either as an initial or follow up assessment. A qualitative assessment of the patient/MD/staff perceptions of telemedicine use were assessed through a 5 point Likert scale. Technology problems were documented for each session and we used descriptive statistics to describe our data where appropriate. One specialist physician (DP), along with CRNP/RN/PA/Resident performed 30 telemedicine consultations. 27 (90%) consultations were performed to completion, 3 sessions were incomplete due to wireless connections issues. Patient assessment and co morbidities management were completed in all 27 patients in the same manner as a face-to-face visit. The consultations included: extensive history, examination, review of test results, final assessment, discussion for additional testing for co morbidities, as well as all treatment options including bariatric surgery as well as extensive education was completed. MD, staff and patient responders agreed that the use of telemedicine is an appropriate and effective use of the clinician's skillset and time (≥96%), and can avoid patient travel from an underserved area to a tertiary care clinic (≥95%). All responders were comfortable and satisfied using the Telemedicine equipment (≥85%) with technology error troubleshooting was the most common cause of incomplete sessions and technology dissatisfaction. MD and patients agreed that the telemedicine equipment helped the patient avoid a face-to-face visit (≥90%) and patients felt the technology was effective in the management of their visit (≥93%). We successfully delivered tertiary obesity care through the use of telemedicine equipment in different clinical situations associated with Pediatric Obesity. Wireless internet connectivity and adequate training of personnel to use the equipment are important aspects of successfully completing telemedicine sessions with patient, staff and physician satisfaction. Access to pediatric tertiary obesity care is a major barrier specifically for minorities and low socioeconomic populations. In our opinion, telemedicine represents a realistic, successful and cost effective modality to provide well-received specialty care for the obese pediatric population.
Learning Objectives	To determine the feasibility of using telemedicine to deliver Pediatric tertiary obesity care and to evaluate Patient/MD/Staff satisfaction

The Frequency of Inappropriate Use of Prasugrel in Patients Post-percutaneous coronary intervention (PCI). A Single Center Study

#39

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Category	**Quality Health Care, Patient Safety, & Best Practices**
Title	**The Frequency of Inappropriate Use of Prasugrel in Patients Post-percutaneous coronary intervention (PCI). A Single Center Study**
Abstract	Background—Prasugrel is a thienopyridine that was approved in 2009 for use in patients with acute coronary syndromes undergoing percutaneous coronary intervention (PCI). It offers more consistent, faster platelet inhibition and has superior anti-ischemic efficacy at the cost of a higher risk of bleeding complications compared with clopidogrel. However, the increased use of prasugrel at discharge following PCI has resulted in its inappropriate use in patients that have absolute or relative contraindications to this drug. We conducted this research in order to assess the frequency of inappropriately used prasugrel and to create a method to potentially reduce its inappropriate use. Methods and Results—In this retrospective study we assessed the patterns of prasugrel use among 937 patients who underwent percutaneous coronary intervention and were discharged alive from July 2014 to July 2015 at a university-based tertiary medical center in West Virginia, USA. We defined the potential inappropriate use of prasugrel as use in patients who had a history of cerebrovascular disease (CVA), weighed <60 kg, or were aged ≥75 years old. Prasugrel was prescribed to 12.9% (n=121) of patients who underwent PCI on hospital discharge. Among patients prescribed prasugrel, 42.1% (n=51/121) presented with acute coronary syndrome (NSTE-ACS or STEMI), while 57.8% (n=70/121) of patients received prasugrel for indications other than acute coronary syndromes. One or more known contraindications to the drug were present in 19.8% of patients discharged on this medication. Of those who were discharged inappropriately on prasugrel, 5% had history of CVA, 11.5% were aged ≥75 year old, and 3.3% weighed less than 60kg. At the end of the study we evaluated the pre-procedure/catheterization note, which is usually completed prior to the catheterization by the cardiology fellow or interventionist. We found that age and weight are not mentioned, so we added 3 boxes in addition to the preexisting CVA box. These three boxes are age, weight and a box saying no Prasugrel. So if the patient has any of these boxes marked then the no prasugrel box will be marked and the patient will not be discharged on prasugrel. Conclusions—Prasugrel use in patients with known contraindications is not uncommon, but according to our study it's been used inappropriately more frequently in our hospital when compared to literature data. Finally adding the (no prasugrel) box to the pre-catheterization note in addition to linking it to a warning box electronically will eventually lead to less inappropriately prescribed Prasugrel. Data on how successful our project will be published after 1-year follow-up.
Learning Objectives	Prasugrel use in patients with known contraindications is not uncommon, so efforts have to be done to eliminate that.

Cancer Survivorship Care Plan

#40

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Category	**Quality Health Care, Patient Safety, & Best Practices**
Title	**Cancer Survivorship Care Plan**
Abstract	Background: The "Cancer Survivorship Care Plan" is a healthcare improvement project aimed at decreasing treatment lag times after initial ENT cancer diagnosis at VA facilities. Patients were originally tracked by the nurse navigator utilizing a paper checklist, which created a 4-6-month intermission from suspicion/time of diagnosis to the beginning of treatment. Design: This improvement project creates an access database to track new ENT patients during the necessary steps taken before chemotherapy, radiation and surgery can be performed. This improvement will be studied using the 10-12 new ENT patients per month at the VA system in St. Petersburg, and an evaluation will be done from time of diagnosis by PCP to time of first treatment. Conclusions: The goal is to improve the lag 20% following the implementation of a new process map and access database.
Learning Objectives	learners should: identify treatment lag times after initial cancer diagnosis and implement systems based approaches to improve efficiency/health outcomes.

Complete bilateral Eustachian tube stenosis from caustic exposure in a young adult male

#41

Presenting Author	Douglas M. Bennion, PhD, MS4, College of Medicine, University of Florida, Gainesville, FL
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Category	**Surgery & Surgical Subspecialties**
Title	**Complete bilateral Eustachian tube stenosis from caustic exposure in a young adult male**
Abstract	Introduction: Eustachian tube dysfunction (ETD) is a commonly encountered entity and accounts for more than 2 million office visits per year. Complete bilateral Eustachian tube stenosis is rare. ETD is caused by abnormal opening or closing of the Eustachian tube leading to disrupted pressure equalization within the middle ear. This is a report of an unusual case of a young adult man with a history of childhood nasopharyngeal exposure to a caustic substance who presented with chronic dilatory ETD. Case Presentation and Diagnosis: A 24 year old man presented to the outpatient clinic for evaluation of ETD. His symptoms included 20+ years of muffled hearing, ear fullness, and occasional otorrhea and ear pain. He described that as a young child, he fell into a pool of alkaline sodium hydroxide solution that burned his mouth and nose. Prior treatments included four previous myringotomies with tympanostomy tube insertions, with only temporary relief. Preoperative findings indicated complete bilateral stenosis of the nasopharyngeal orifices of the Eustachian tubes secondary to scarring, which required surgical treatment with electrocautery lysis of scar prior to balloon dilation of the tubes. This approach, necessitated by the complete blockage of the Eustachian tubes, resulted in patency of the tubes bilaterally. Outcome: At post-operative visits, he reported subjectively improved hearing and the tubes remained patent bilaterally on flexible endoscopic exam. To our knowledge, this is the first known report of repair of complete bilateral Eustachian tube stenosis with Eustachian tube balloons. Currently available evidence indicates that treatment of chronic ETD with balloon dilation is likely to improve patient satisfaction, though more definitive evidence of treatment efficacy is lacking. This report offers a unique perspective for the surgical management of stenotic Eustachian tubes causing chronic ETD that incorporates established endoscopic balloon dilation techniques that are available and known to be safe.
Learning Objectives	1. Describe the epidemiology of Eustachian tube dysfunction 2. Identify treatment options, including surgical management 3. Recognize the need for further studies of treatment options for Eustachian tube dysfunction

Fellowship Training in Microvascular Surgery and Post-Fellowship Practice Patterns: a Cross Sectional Survey of U.S. Otolaryngologic Surgeons from Facial Plastics and Reconstructive Surgery Programs

#42

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Category	**Surgery & Surgical Subspecialties**
Title	**Fellowship Training in Microvascular Surgery and Post-Fellowship Practice Patterns: a Cross Sectional Survey of U.S. Otolaryngologic Surgeons from Facial Plastics and Reconstructive Surgery Programs**
Abstract	Background: Within the field of otolaryngology, few details have been described regarding training in microvascular surgery techniques during Facial Plastic and Reconstructive Surgery fellowships. Practicing surgeons pursue a variety of surgical techniques, caseloads, and practice models. Given the lack of formal assessments of this information previously, the purpose of this study was to explore their fellowship training and practice patterns. Methods: This was a cross-sectional survey study of recent graduates (n=94) of a subset of U.S. Facial Plastic and Reconstructive Surgery fellowship programs that provide significant training in microvascular surgery (n=9 programs). Results: Two-thirds of survey respondents (n=21, 22% response rate) completed 20-100 microvascular cases during fellowship, with the large majority being trained in radial forearm, fibula, anterior lateral thigh, latissimus and rectus free tissue transfers. In post-fellowship practice, those who continued practicing microvascular reconstruction (86%) reported completing an average of 33 cases annually, mainly indicated for the treatment of head and neck cancers and osteoradionecrosis (88% of cases). The choice of donor tissues for reconstruction mirrored their training (e.g. radial forearm, fibula, anterior lateral thigh). They were most often assisted by a resident (73%) and/or fellow (43%), while some worked with a micro-trained partner, surgical assistant, or performed solo procedures. Interestingly, among those who began in private practice (29%) out of fellowship, half had experienced a subsequent move to a different practice, while those who joined academic practices (71%) largely remained at their initial post-fellowship location (87%). Conclusions: These results detail the training and practice patterns of facial plastics-trained microvascular surgeons. They may inform the decisions of trainees considering subspecialty training at such programs, as well as those overseeing their fellowship training. For those currently in practice, this provides a benchmark for comparison in the evolving field of otolaryngologic reconstructive microvascular surgery.
Learning Objectives	1. Describe the training in microvascular surgery techniques during Facial Plastic and Reconstructive Surgery fellowships 2. Discuss the microvascular surgery practice patterns by these surgeons post-fellowship

Ureteral Entrapment in an Anterior Column Posterior Hemitransverse Acetabulum Fracture – A Case Report

#43

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Category	**Surgery & Surgical Subspecialties**
Title	**Ureteral Entrapment in an Anterior Column Posterior Hemitransverse Acetabulum Fracture – A Case Report**
Abstract	Introduction: Entrapment of the ureter in a post-traumatic displaced pelvic fracture is extremely rare. To our knowledge, this is the only reported case of dual ureter and obturator nerve entrapment within an anterior column and posterior hemitransverse acetabular fracture. It is imperative to be mindful of complications regarding ureteral injury, as a delay in diagnosis could prove to be severely disabling. We believe that further study of this type of biomechanical entrapment is warranted to heighten clinical suspicion and ultimately improve management of patients with acetabular fractures. Case Description: A 59 year-old man was transported to our emergency department after being hit on his bicycle by a car traveling 40-50 mph. On arrival, he was hemodynamically stable complaining of left hip pain. The pelvis elicited crepitus in the left iliac region, but was otherwise stable. There was no gross hematuria or blood at the urethral meatus. Diagnostic workup included radiographs and CT scan of the pelvis, which showed a left-sided anterior column and posterior hemitransverse acetabular fracture, with ureteral entrapment within the anterior section of the fracture, at the level of the pelvic brim. Intravenous contrast was seen distal to the entrapped ureter, with no definite free fluid. Final/ Working Diagnosis: Anterior column and posterior hemitransverse acetabular fracture with ureteral entrapment in the anterior section of fracture. Management/Outcome: Plan was made for open reduction internal fixation of the left acetabulum with direct removal of the ureter and obturator nerve from the fracture site by the orthopaedic trauma service, followed by ureteral stenting by urology. On direct examination intraoperatively, the ureter and obturator nerve had no evidence of contusion or violation. The patient was catheterized and did not demonstrate hematuria peri- or post-operatively. The remaining hospital course was uneventful and the patient was discharged on the ninth post-operative day without complication.
Learning Objectives	Upon completion of this presentation, learners will have enhanced clinical suspicion for ureteral complications in traumatic acetabular fractures. Although ureteral entrapment in multi-fragmented acetabular fractures is rare, it is nonetheless clinically valuable to improve awareness due to the significant morbidity associated with ureteral injury. Ureteral obstruction or resection precipitates an avenue for critical infection, urinary extravasation, renal insufficiency and fistula formation, which is often difficult to manage when recognized post-operatively. Improved suspicion may increase pre-operative diagnostic accuracy; enabling tailored surgical planning and appropriate involvement of a multidisciplinary team. Additionally, the learner will further recognize the value of effective communication, teamwork and flexibility across disciplines in improving patient outcomes.

Superficial epigastric venous anastomosis and its occurrence in 293 deep inferior epigastric perforator flaps

#44

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Present as Poster?	Yes
Category	**Surgery & Surgical Subspecialties**
Title	**Superficial epigastric venous anastomosis and its occurrence in 293 deep inferior epigastric perforator flaps**
Abstract	Background: Breast reconstruction is done by 2 general techniques: implant-based and autologous reconstruction. Autologous reconstruction uses the body's own tissues to reconstruct the breast. One such technique is the deep inferior epigastric perforator (DIEP) method, which uses the deep inferior epigastric system and anastomoses it to the internal mammary system. In patients that develop flap congestion after anastomosis, the superficial inferior epigastric vein can additionally be anastomosed to the internal mammary vein. This retrospective chart review details this technique and measures its occurrence in 293 flaps performed by a single surgeon. Methods: 224 patients' charts were reviewed, for a total of 293 DIEP flaps performed. All patients that developed intra-operative congestion not due to issues with thrombosis or patency of microvascular anastomosis were identified and analyzed. Results: From a cohort of 293 flaps performed, 50 flaps (17.1%) exhibited congestion intra-operatively. Additional venous anastomosis using the superficial inferior epigastric vein to the internal mammary vein was performed in these flaps. Flap recovery was 100% in these patients. Of these 50 congested flaps, 1 flap (2.0%) required re-exploration with revisional arterial anastomosis, but no flaps required re-exploration with revisional venous anastomosis. Of the 243 flaps that did not initially develop congestion, 8 flaps (3.3%) required re-exploration with revisional arterial anastomosis, and 3 flaps (1.2%) required re-exploration with revisional venous anastomosis. Conclusions: Congestion due to poor venous outflow from the deep inferior epigastric system can be corrected using the superficial inferior epigastric system. Here, we present that the internal mammary is a suitable target vein for additional venous anastomosis.
Learning Objectives	1. Identify the DIEP flap method, including its choice of donor site and vessels anastomosed. 2. Realize that when flaps are congested, the internal mammary vein is a suitable target to anastomose with the superficial inferior epigastric vein for relief.

Systemic prolactinoma masquerading as metastatic disease

#45

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Category	**Surgery & Surgical Subspecialties**
Title	**Systemic prolactinoma masquerading as metastatic disease**
Abstract	Introduction: Pituitary prolactinomas are rare tumors, accounting for less than 2% of all intracranial neoplasm. The incidence of extracranial metastasis of prolactinoma are even more infrequent and represent 0.1-0.2% of all pituitary neoplasms. We present a case of disseminated intracranial, and extracranial prolactinoma with our evidence of disease within the pituitary, or elevated prolactin. Case Presentation: This is an otherwise healthy 31-year-old male who presents with progressive, low back pain, leg clumsiness, and decreased fine motor skills. He also had difficulties with urination and erectile dysfunction. On examination, he has subtle weakness to both lower extremities with hyperreflexia. His gait was ataxic. MRI of the neural axis reveals multiple large intradural masses throughout the cervical, thoracic, and lumbar spine causing compression of the neural elements. His brain MRI shows extensive leptomeningeal enhancement with involvement of CN III, VII and VIII. No enhancement was observed within the sella. The patient underwent a biopsy of the lumbar lesion which showed strong perinuclear staining for prolactin. KI-67 5%. GH is equivocal, ACTH and TSH negative. Octreotide scan was negative. Prolactin levels were within normal limits. Final/Working Diagnosis: The patient was diagnosed with systemic prolactinoma. Management/ Outcome/ Follow-up: He underwent stereotactic radiosurgery to the brain and spinal cord. He was treated with Temodar (temozolomide) chemotherapy. At 24 months, he remains asymptomatic. His lesions have decreased in size.
Learning Objectives	Upon completion of this lecture, learners should be better prepared to discuss the prevalence of metastatic prolactinoma and discuss the treatment for prolactinoma.

The Use of Ultrasound to Evaluate a Fractured Nexplanon and to Determine the Safest Removal Method

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Category	**Women's & Children's Health**
Title	**The Use of Ultrasound to Evaluate a Fractured Nexplanon and to Determine the Safest Removal Method**
Abstract	Background: While the fracture of a Nexplanon implant is a known potential risk, it remains a rare occurrence. Therefore, no standard investigative techniques to evaluate for a fractured rod have been established. We present a case of using ultrasound to evaluate a fractured Nexplanon and to help determine the best option for removal. Case: A 29 year old female presented to the office with increased vaginal bleeding and the feeling that her Nexplanon was broken. She denied any trauma to the area. She had been having light, regular periods for several months after Nexplanon placement, but then developed 2 weeks of continued bleeding. Methods: POC ultrasound system with a 15-6 mHz linear array probe was used to image and digitally capture the Nexplanon in situ in its long and short axis. Results: On exam, the Nexplanon was easily palpated in its proper placement, but the device felt broken. It was unclear, however, if the protective sheath was intact. Since a broken sheath may necessitate a surgical removal, POC ultrasound was performed to further investigate. The entire Nexplanon was easily visible. POC ultrasound revealed a sharp bend towards the center of the rod, but the protective sheath looked intact. Therefore, the decision to attempt removal was made. The rod was removed intact without difficulty and the procedure was tolerated well. Inspection of the Nexplanon revealed a cracked outer membrane allowing for easy-bending and exposure of the implant core. Discussion: A fractured Nexplanon remains a rare occurrence. Since Nexplanon is radiopaque, radiographs have been used to evaluate possibly damaged implants. However, we present a simple method using ultrasound to determine implant damage while also examining the surrounding sheath. This method can therefore be used to determine if removal can be attempted in the office or if surgical removal is necessary.
Learning Objectives	1) investigate a possible broken contraception rod using ultrasound 2) determine if in-office removal should be attempted or if referral for surgery is the safer option