

PLASTIC SURGERY RESIDENCY TRAINING AND THE PROBLEMATIC RESIDENT, A SURVEY OF PROGRAM DIRECTORS

ABSTRACT #88 REF: 11003369

Introduction: Resident training is an essential part of medical specialties. Large hospitals and academic medical centers are the main settings for residency training. The Veteran Affairs Hospitals across the country play an essential role in residency training. Within the specialty of plastic surgery, recent study has demonstrated the profound impact of rotations at the Veterans Affairs Hospitals in achieving core plastic surgery training. Selection of intelligent, motivated, and ethical individuals who will thrive in the residency training setting both clinically and academically is the ideal. Nevertheless, occasionally, problematic residents arise. Identifying and managing these situations can be difficult. To further investigate traits attributed to problematic residents and strategies for managing these situations, we prepared a survey based study of plastic surgery program directors.

Methods: A 16 question survey was prepared and distributed electronically through the qualtrics platform to plastic surgery program directors nationwide between July 2016 and October 2016. Survey questions were designed to assess qualities attributed to problematic residents and management of associated issues.

Results: Responses were received from 54 program directors. Selected by 57% of respondents, issues of ethics was the most commonly reported attribute. Alteration of records and academic/scientific dishonesty were also cited as problematic behaviors. The initial course of action for the majority of respondents was private meeting. Respondents indicated assignment of a mentor as an additional option. While most respondents agreed termination should be a last resort, immediate dismissal could be considered for behavior endangering patient safety and violations of confidentiality. One quarter of respondents reported having terminated a resident for questionable ethics (38.9%), Unreliable (33.3%), and academic/scientific dishonesty (22.2%)

Conclusions: Concerns of ethics is the most common attribute program directors attribute to problematic residents. Most program directors manage these situations with increased oversight in the form of private meetings and assigned mentorship.

IATROGENIC ACETAMINOPHEN TOXICITY IN A POSTOPERATIVE PATIENT

ABSTRACT #89 REF: 11003336

We present a patient who developed iatrogenic post-operative acetaminophen toxicity requiring N-acetylcysteine (NAC) treatment.

A 58-year-old male with a history of hepatitis C and alcohol abuse (10 beers/day) underwent thoroscopic resection of a lung nodule. Pre-operatively, the patient had liver function tests (LFTs) within normal limits. The patient was extubated post-operatively. Acetaminophen 1 g PO Q6H and oxycodone PRN were used for pain control. On post-operative day (POD) 3, LFTs were noted to be elevated: AST: 3169 U/L, ALT: 758 U/L, Alk Phos: 110 U/L, TBili: 2.8 mg/dL, albumin: 2.4 g/dL. Acetaminophen was then discontinued. He had received a total of 9 g of acetaminophen over 3 days. LFTs peaked on POD 4: AST: 5417 U/L, ALT: 1372 U/L, Alk Phos: 119 U/L, TBili: 3.5 mg/dL, albumin: 3.1 g/dL, lactate: 6.1 mMol/L, INR 2.8. A CT scan of the abdomen was done and revealed fatty liver without portal vein thrombosis or other biliary tract abnormalities. Acetaminophen level was 12.9 mg/L; therefore he was diagnosed with drug-induced hepatotoxicity and treated with intravenous NAC and vitamin K. On POD 5, acetaminophen level decreased to 0.5 mg/L. The patient was discharged on POD 7 with improved LFTs (AST: 863 U/L, ALT: 706 U/L, Alk Phos: 2.5 U/L, TBili: 3.3 mg/dL, INR: 1.24).

Acetaminophen is a commonly used analgesic. There are no evidence-based guidelines for dosing acetaminophen in patients with liver disease or alcoholism.

Based on expert opinion, 2 g/day has been suggested for these patients. However, small studies have reported short-term use of 4 g/day with no adverse effects.

This is the first reported case of iatrogenic acetaminophen toxicity when used as a post-operative analgesic within the maximum recommended daily adult dose of 4 g. We suggest cautious post-operative use of acetaminophen with monitoring of LFTs in patients with risk factors for hepatotoxicity such as hepatitis, alcohol abuse and malnutrition.

FEASIBILITY AND EFFICIENCY OF A DECISION AID TO HELP VETERANS CHOOSE BETWEEN OPEN AND ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM

ABSTRACT #90 REF: 11003302

Introduction:

Decision aids have been used to help patients choose between medical treatments, such as steroids or biologics for inflammatory bowel disease, and between medical and surgical treatments, such as NSAIDs versus joint replacement for osteoarthritis. However, the use of a decision aid to help Veterans choose between competing surgical treatments, such as open and endovascular repair of abdominal aortic aneurysm (AAA), has not been described.

Methods:

We studied the implementation of a decision aid designed to help Veterans choose between open and endovascular repair of their AAA as part of the Preferences for Open Versus Endovascular Repair of Abdominal Aortic Aneurysm (PROVE-AAA) Trial. In this 20-site, cluster-randomized trial, Veterans with a 5.0 cm AAA who are candidates for open and endovascular repair receive a decision aid and preference survey before their vascular surgery clinic visit. The trial compares outcomes between Veterans receiving the decision aid and a preference survey versus the preference survey alone. We report the feasibility and efficiency of these efforts using quantitative assessment of decision aid completion and qualitative descriptions of decision aid implementation.

Results:

The PROVE-AAA Trial began enrollment in June, 2017. By January, 2018, 19 centers have enrolled 102 Veterans, each of whom completed the decision aid and survey of their preferences for AAA repair type. Research coordinators administered the decision aid/survey in 17 of 19 sites (89%), and clinical team members (physician assistants) administered the instrument in remaining sites. All but four Veterans have complied with study follow-up (96%). Qualitative assessment by study coordinators found decision aid administration to be “efficient”, and Veterans’ families described the decision aid as “useful in helping us decide about repair.”

Conclusions:

Broad use of a decision aid to better understand Veteran preferences about surgery for AAA is feasible, and can be efficiently implemented using a multidisciplinary team.

LIPOSOMAL BUPIVACAINE EFFECTS ON OPIOID USAGE AFTER WIDE AWAKE CARPAL TUNNEL RELEASE IN VETERAN POPULATION

ABSTRACT #91 REF: 11003258

Introduction

Opioid usage for postoperative pain control has become increasingly controversial within the US. Liposomal bupivacaine has been shown to be effective for long lasting pain control in a variety of surgical procedures, and may be effective in reducing opioid consumption. The purpose of this study was to compare pain levels and opioid consumption following open carpal tunnel release (CTR) using liposomal bupivacaine.

Methods

Patients undergoing wide-awake, open CTR in 2017 were prospectively randomized into control or treatment groups for local anesthetic. The control group received 20 mL of 0.25% bupivacaine. The treatment group received 10 mL of 0.25% bupivacaine and 10 mL of liposomal bupivacaine. All patients were prescribed 20 opioid pills post-operatively. Data was collected on patient demographics, comorbidities, and complications. Patients were surveyed on post-operative days (POD) 3 and 7 regarding overall pain control and amount of opioid pain pills used.

Results

Fifty-six patients underwent CTR during the study period, 29 of which were randomized to the control group and 27 to the treatment group. Overall, the average age was 61 years and the majority of patients were male (95%). On POD 3, the treatment group had a lower average pain rating (4.1 vs. 5.2 out of 10, $p=0.08$) and required fewer opioid pain pills (5.0 vs. 7.4 pills, $p=0.07$). On POD 7, average pain rating was 2.5 vs. 3.0 ($p=0.37$) and opioid consumption was 7.5 vs. 10.7 ($p=0.07$) when comparing treatment vs. control groups. Average total opioid usage for all patients at one week post-operatively was 9.1 pills.

Conclusions

Liposomal bupivacaine reduced post-operative pain and opioid use following CTR. Hand surgeons should consider long acting, local anesthetic as an adjunct to combat the opioid epidemic and improve patient satisfaction.

PREDICTORS OF UNPLANNED RE-OPERATION AFTER ABOVE-KNEE AMPUTATION

ABSTRACT #92 REF: 11003026

Background: Unplanned reoperation has been identified as an independent risk factor for increased morbidity/mortality, as well as for hospital readmission following surgical intervention. Above-knee amputation (AKA) is typically considered a last-resort procedure. We describe risk factors for unplanned reoperation after AKA.

Methods: Medical records were reviewed for all patients undergoing AKA at two hospitals from January 2013 to December 2015. Data collected included standard demographic and comorbidities, perioperative data, and postoperative outcomes. Pearson's chi-square test, Fischer exact test, and logistic regression were calculated as indicated with the SAS software package.

Results: Over the study period, 185 AKA were performed in 155 patients. Mean age was 65.53 (SD 13.31) years with 75.68% males. Indications for amputation included tissue loss (n = 58, 31.52%), rest pain (n = 21, 11.41%), infection (n = 72, 39.13%), or a combination of those (n = 33 17.93%). Seventy-four patients had undergone prior ipsilateral open (83.78%) and/or endovascular intervention (55.41%), and 92 patients had a history of prior ipsilateral (81.52%) and/or contralateral (41.30%) amputation. There was a 15.76% rate of return to the operating room, with the most common procedure performed being an amputation revision (n= 13, 44.82%). Two patients required conversion to a hip disarticulation. Independent risk factors for reoperation on univariate analysis included prior ipsilateral open or endovascular revascularization, presence of any complication, post-operative wound infection, wound dehiscence, and hematoma. On multivariate regression, wound dehiscence (OR 8.71, p 0.0012), prior ipsilateral endovascular intervention (OR 5.10, p 0.0024), and post-operative hematoma (OR 46.70, p 0.0033) were found to be independent risk factors for unplanned reoperation following AKA.

Conclusion: Failure of AKA is a challenging clinical scenario with limited salvage options. Wound dehiscence and post-operative stump hematoma greatly increase the risk of re-operation. Steps to minimize risk of wound-related complications are vital this high-risk patient population.

FEMALE GENITAL CANCER INCIDENCE, TRENDS AND SURGICAL THERAPY IN THE UNITED STATES: 2000-2014

ABSTRACT #93 REF: 11002626

Introduction: Changes in incidence and trends for surgical intervention of female genital cancer are occurring amongst anatomical subsites. Purpose was to study recent data to examine female genital cancer incidence, demographic trends and shifts in operative management and survival.

Methods: Surveillance, Epidemiology, and End Results data (2000 to 2014) was employed to identify patients with female genital cancer. Incidence, demographics, cancer-related data, site-specific therapy, and survival evaluated. Age adjusted relative rates of survival calculated for each site- specific therapy.

Results: A total of 336,656 cases of female cancer were diagnosed in the United States between 2000-2014. Majority of patients identified as white (n=274,420; 81.5%) females between 55-64 years (n=44,689; 13.3%). Cancer of the corpus and uterus was the most common anatomical subsite (n=169,327; 50.3%), followed by cancer of the ovary (n=87,067; 25.9%), cancer of the cervix (n=52,451; 15.6%), and cancer of the vulva (n=16,354; 4.9%). Most cancer diagnosis were confirmed by histological analysis (n=318,192; 95.7%), and were poorly differentiated (grade III) at the time of diagnosis (n=75,343; 30.1%). Among patients treated surgically, majority underwent a “debulking” procedure (n=173,008; 51.4%). Mortality attributable to the primary cancer was 81,998 or 28.4%. Relative age standardized survival with no therapy ranged from 1-year survival of 48.4% to 5-year survival rate of 24.6%. Total surgical removal of the primary site had the highest rate of 1-year (88.3-100%) and 5-year survival (73.6-98.9%.)

Conclusion: Patients are likely white women 55-64 years old suffering from cancer of the corpus and uterus. Debulking was the most common procedure; removal of primary site had highest 1-year and 5-year survival. This data provides particularly helpful information for gynecologic oncologists and plastic surgeons to understand changes in disease incidence, demographics and trend on surgical management. This information can be used to effectively educate patients, and perform a more comprehensive informed consent.

FLOW RATE AND PRESSURE ESTIMATION TOOLBOX FOR TEVAR PATIENTS

ABSTRACT #94 REF: 11002545

INTRODUCTION. Fluid-dynamic modeling is widely used for cardiovascular device development. The aortic arch is among the most challenging locations for modeling, but efforts are hampered by the lack of boundary conditions for accurate analysis. We propose a novel set of flow rate and waveform estimation algorithms for patient-specific hemodynamic modeling of aortic arch endografts, based only on the arterial tridimensional model.

METHODS. Diameters and flow rates waveforms from duplex scans were extracted for common carotid(CCA), subclavian(SCLA), and vertebral(VA) arteries pre- and post-arch endografting (n=15patients;1week,1month,6months). Pressure waveforms were collected intra-operatively both before and after device deployment. In addition, a Windkessel resistance/compliance algorithm was employed to model the downstream vasculature of these arteries.

RESULTS. The baseline flow rate was highly correlated to the diameter of the analyzed branches(Spearman $Rho=0.62$, $p<.0001$), supporting an algorithm for estimation of branch-specific flow rate based on diameter size. Notable in the post-operative period was a redistribution of flow between the VA, following coverage of the left SCLA.

Compared to CCA, the SCLA demonstrated a 3-fold greater downstream resistance, consistent with the reduced diastolic flow of these arteries, as well as a 2-fold greater compliance. The downstream compliance of the VA was significantly greater(3-fold) than that observed for the CCA, likely resulting from the unique configuration of collateral pathways in the posterior circulation.

CONCLUSIONS. We developed a series of algorithms that facilitates estimation of patient- and branch-specific flow and pressure waveforms of the aortic arch great vessels. In addition, we detail the temporal changes in these parameters that are encountered following arch endografting. In combination, these models can be used to extract realistic, patient-specific boundary condition for hemodynamic modeling, using only parameters obtained from routine CT scanning. Such a step is critical in advancing our ability to computationally model the aortic arch for next generation stent graft development.

NODAL DOWNSTAGING FOR LOCALIZED PANCREATIC CANCER WITH NEOADJUVANT THERAPY – HOW TO GET THERE AND WHY IT MATTERS

ABSTRACT #95 REF: 10998539

Introduction: Presence of nodal metastases is associated with a poor prognosis in patients with localized pancreatic adenocarcinoma (PDAC). Neoadjuvant therapy (NT) is one strategy for managing such patients and is associated with nodal downstaging (attaining pathologic N0 (ypN0) status) in up to 38% of patients. The goals of this study were to evaluate which types of NT best achieved nodal downstaging and to examine whether this response is associated with improved survival.

Methods: Retrospective cohort study of patients with clinical node-positive T1-3 PDAC treated with NT and surgery from the National Cancer Data Base (2006-2014). Patients were grouped based on NT regimens used (single agent (SAC) vs multi-agent (MAC) chemotherapy with or without radiotherapy (XRT)). Multivariable modeling was used to evaluate the association between nodal downstaging and NT regimen (Poisson regression) as well as overall risk of death (Cox regression).

Results: Among 673 patients, 401 received neoadjuvant XRT (221 MAC-XRT, 180 SAC-XRT) and 272 did not (215 MAC, 57 SAC). XRT administration was associated with higher rates of nodal downstaging compared to chemotherapy alone (53.0% vs. 25.6%, $p < 0.001$). Relative to MAC, SAC without XRT was associated with a lower likelihood of nodal downstaging (RRR 0.38 [95% CI 0.17-0.84]), whereas XRT use was associated with a significantly greater likelihood (SAC-XRT: 1.69 [1.29-2.23] and MAC-XRT: 1.88 [1.46-2.42]; XRT overall: 2.08 [1.64-2.64]). Relative to patients who remained ypN+ after NT, ypN0 status was associated with a significantly lower risk of death (HR 0.61 [0.48-0.77]) regardless of whether XRT was used (0.63 [0.47-0.84]) or not (0.43 [0.27-0.70]).

Conclusion: Nodal downstaging occurs more frequently when XRT is used as part of NT and is associated with improved survival regardless of the type of NT regimen. Future work should explore when and how best to incorporate XRT into the multimodal management of PDAC patients.

TEN YEAR VA EXPERIENCE OF COMMON FEMORAL ENDARTERECTOMY AND COMBINED ILIAC STENTING FOR LIMB SALVAGE: 2007 TO 2017

ABSTRACT #96 REF: 10989168

Introduction: Common femoral endarterectomy (CFE) and iliac stenting are the traditional treatment in lower extremity inflow disease. For some patients with claudication or rest pain, CFE alone may suffice, however, some surgeons advocate that in-line flow must be reestablished in patients with major tissue loss for wound healing purposes. Within the VA population, there is an extremely high incidence of multilevel inflow disease requiring repeated interventions for limb salvage. We hypothesize that CFE and iliac stenting with the goal of limb salvage can safely be performed in patients with multilevel arterial disease.

Methods: We retrospectively analyzed the Philadelphia VA hospital database of lower extremity interventions from January 2007 to December 2017 (n= 137). Pre-intervention, perioperative events, and post-operative events were assessed. Analysis of morbidity and mortality was conducted. Limb salvage rate and amputation-free survival was determined.

Results: All patients were male, the mean age was 66.2(\pm 7.9) years, there were 36.1% with CAD, 21.0% with diabetes, 29.0% with COPD, and 9.7% with renal insufficiency. Indications for surgery claudication (34%), rest pain (40%), and tissue loss (26%). Most patients (87.0%) underwent concurrent iliac stenting, and only a minority underwent femoral-popliteal bypass (19.7%). The mean preoperative ABI was 0.31 (\pm 0.26), which improved to 0.77(\pm 0.27) at one month, and was preserved at 24 months (0.67 \pm 0.31). Nearly a 94.6% limb salvage rate and an 72.4% amputation free survival rate at 10 years was noted.

Conclusions: For patients with multilevel peripheral arterial disease, CFE is associated with excellent limb salvage. When combined iliofemoral arterial occlusive disease is treated with CFE and iliac stenting, there is good long-term patency and limb salvage.

IMPROVING TREATMENT DECISIONS IN ADVANCED PROSTATE CANCER USING NOVEL WHOLE-BODY IMAGING

ABSTRACT #97 REF: 10982097

INTRODUCTION

Novel PET radiotracers have improved prostate cancer localization and staging in patients with recurrent and advanced disease. The increased ability of these whole-body scans to detect minute amounts of cancer has significantly impacted clinical decision making. Our objective is to quantify this impact on patients at our institutions.

METHODS

242 consecutive whole-body PET scans were reviewed. These scans utilized carbon-11 acetate (C-11-ac) (n=160), Ga-68 prostate specific membrane antigen (Ga-PSMA) (n=70), and fluciclovine-18 (F-18) (n=12). Each case was reviewed and individual decision-making nodes were evaluated for impact. Primary decision-making nodes were systematically evaluated to assess the impact of each scan performed. In patients with biochemical recurrences the scans 1) confirmed disseminated disease with initiation of systemic therapy, 2) confirmed oligometastatic or local regional disease with initiation of targeted therapy, or 3) failed to demonstrate disease with initiation of watchful waiting.

RESULTS

Adequate clinical information was available on 154 scans (98 C11-ac, 44 Ga-PSMA, and 12 F18) to assess impact. In 106 (68.8%) scans met explicit criteria for overt clinical impact at one of several decision-making nodes. These scans either confirmed the proposed treatment plan or altered the treatment plan by 1) preventing unnecessary local salvage therapy, 2) delaying unwarranted systemic therapy 3) allowing local salvage therapy and delaying systemic therapy.

Updated data for this cohort will continue to be collected and reported as clinical courses mature. In-depth assessment of impact at each specific decision-making node will be discussed.

CONCLUSION

Greater than two thirds of the evaluable scans impacted the clinical care in this cohort. As the application and impact of whole-body imaging modalities continue to be studied and imaging techniques improve, it is likely that these scans will be applied much earlier in prostate cancer treatment algorithms.

SURGEON WELLNESS AND JOB SATISFACTION WITHIN THE VETERANS ADMINISTRATION

ABSTRACT #98 REF: 10981732

Introduction: The Veterans Administration is the largest health care system in the US. As it undergoes transformation it is important to understand the level of job satisfaction and wellness amongst its surgeons in the VA. This can have an effect on retention of current staff and recruitment of future staff in the VA.

Methods: A survey was developed and was sent to surgeons who are members of a Veterans Surgical Association. They were queried on various demographics such as time in the VA, status in the VA and surgical specialty. We also queried them on the opinions on the work environment and job satisfaction.

The data was anonymous to respondents and there was no patient information.

Results: A total of 89 responses were received. Various information was obtained which looked at demographics as well as research, affiliation to Universities and satisfaction in the VA. The data revealed that most surgeons were satisfied to work in the VA and obtained good job satisfaction.

Conclusion: While there are many challenges to working in the VA as surgeon. It would appear that most surgeons get good job satisfaction to working in the VA and have strong affiliations to the academic institutions and are heavily involved in research whether funded or not.

THE IMPACT OF TRAUMATIC DOG BITE INJURIES NECESSITATING SURGICAL TREATMENT IN ELDERLY VETERANS

ABSTRACT #99 REF: 10981587

Background/Significance: Traumatic dog bite injuries are a common reason for emergency department visits and VA hospital admissions. This study was designed to investigate the epidemiology and overall healthcare burden of dog bites occurring in the elderly population. With an aging veteran population, a better understanding of the impact of dog bite-related injuries is important to help refine preventative efforts and quality improvement programs.

Methods: Data was obtained using the Nationwide Emergency Department Sample (NEDS) 2009 database. Inclusion criteria included patients 65 years of age or older with ICD-9 of "E90.60=dog bite." Demographics including age, gender, and income quartile were recorded. Site of injury, associated fractures, and cellulitis were obtained. Type of procedures were categorized into two groups: Minor and Major Therapeutic. Inpatient length of stay and total charges were also collected.

Results: A total of 318,161 dog bite related ED visits were identified, of which 24,541 were 65 years of age and older (13%). Over 95% of patients had only a single injury site, with the most common site being the upper extremity (72.5%). The incidence of cellulitis was 7.9%. Admitted elderly patients often had subsequent therapeutic procedures (minor 40.9%, major 26.3%, flap/graft 3.6%). Average inpatient length of stay (LOS) was 4 days. The average total charge for patients requiring only ED services was \$1,094 per patient and patients requiring combined ED and inpatient services was \$24,551.

Conclusions: Dog bite-related injuries are a significant source of trauma presenting to ED and often requiring surgical debridement and wound closures. The impact of dog bite injuries poses a substantial burden on public health both medically and financially. Increased vigilance in prevention of these injuries and their associated complications is crucial to reduce overall morbidity and medical costs.

MANAGEMENT OF THE PRESSURE INJURY PATIENT WITH OSTEOMYELITIS: AN ALGORITHM

ABSTRACT #100 REF: 10980948

Introduction

Pressure injury (PI) is a common complication of inpatient care, affecting an estimated 3 million patients annually in the United States. Veterans with personal, social, and economic risk factors for PI are at high risk for recurrence despite initial success at wound coverage. We propose an algorithm for the diagnosis and treatment of osteomyelitis (OM) secondary to PI for surgeons to follow in patients with high-grade PI and suspected OM for both curative and palliative treatment goals.

Methods

A comprehensive literature search of the PubMed database was conducted for studies published from 1967 to 2017. Keyword queries included: pressure injury, pressure ulcer, and osteomyelitis. Data was collected on diagnosis, work-up, treatment options, outcomes, and complications.

Results

Thirty-six relevant primary literature and review articles were found. Articles covered a variety of medical and surgical treatments and stressed social and nutritional optimization. An algorithm was constructed based on evidence from these articles.

Diagnosis of OM due to PI is confirmed with a triplicate bone biopsy. Imaging is useful for determining the extent of disease. Some patients are not candidates for definitive wound coverage for various reasons and are best served by palliative therapy. In the appropriate patient, curative treatment should begin with wide debridement to well-vitalized tissue. Antibiotics guided by susceptibility are appropriate only prior to definitive coverage. When a patient is medically optimized, the least invasive and most effective coverage method should be utilized.

Conclusion

Pressure injuries with associated osteomyelitis are a common problem in the veteran population. The cost associated with treatment is high, as is the recurrence rate of patients who undergo surgical reconstruction of associated defects. The proposed algorithm aids clinicians in appropriate diagnosis and treatment of OM secondary to PI.

TRANSLATING CLINICAL TRIAL EVIDENCE INTO VA PRACTICE: THE CASE OF CAROTID REVASCULARIZATION

ABSTRACT #101 REF: 10978478

Introduction: Carotid endarterectomy and stenting are performed for stroke prevention among patients with asymptomatic carotid disease. Guidelines recommend that patients have low 30-day mortality and a 5-year life expectancy before being considered for revascularization to ensure benefit. We determined the 30-day mortality and 5-year survival of patients undergoing carotid intervention categorized by CREST inclusion and exclusion criteria.

Methods: Using VA data, we identified patients 65 and older who received carotid revascularization between 2005 and 2009 using ICD9 and CPT codes. We excluded patients who had a history of stroke/transient ischemia in the 6 months prior to revascularization. We considered a patient as meeting CREST criteria if they met carotid stenosis targets (>70% by ultrasound) and did not have the following comorbidities: 1) atrial fibrillation, 2) dialysis 3) CHF with an EF<30% 4) COPD with an FEV1<30% predicted 5) malignancy/receiving palliative care. We examined proportion of Veterans who met CREST criteria. We determined the 30-day mortality rate and overall 5-year survival.

Results: The mean age in our cohort (N=2359) was 74.3 and 99.2% were male. Among the cohort, 8 (0.34%) were on dialysis, 164 (7.0%) had severe CHF (EF<30%), 245 (10.4%) had severe COPD, 95 (4.0%) had a history of malignancy/palliative care and 329 (14.0%) had atrial fibrillation. Overall 1728 (73.3%) met CREST criteria. The 30-day-mortality rate was 0.8% (95% CI=0.5-1.1). Among patients meeting CREST criteria the 30-day-mortality rate was 0.6% (95% CI=0.4-1.2) and 1.1% (95% CI=0.5-2.3) for those not meeting criteria (p=0.24). Overall 5-year survival rate was 69.4% (95% CI=67.5-71.3%). Among patients meeting CREST inclusion criteria, 5-year survival was 74.4% (95% CI 72.3-76.5%), and 55.6% (95% CI=51.6-59.5%) for not meeting inclusion criteria (p<.0001).

Conclusions: Patients undergoing carotid intervention have acceptable perioperative mortality in the VA. Using CREST inclusion criteria, there is an opportunity to improve long-term survival through patient selection.

POSTOPERATIVE SURVEILLANCE FOR VETERANS WITH GASTROINTESTINAL CANCER—CAN WE DO BETTER?

ABSTRACT #102 REF: 10978388

Introduction: Post-resection surveillance is a critical component of care for Veterans with gastrointestinal (GI) cancer. National guidelines offer algorithms to facilitate early detection of recurrent disease, yet rates of adherence to these guidelines in the Veteran population are unknown. We sought to characterize postoperative surveillance patterns for Veterans with GI cancer at a tertiary care VA hospital.

Methods: A retrospective cohort study identified all patients at our Veterans Affairs Hospital who underwent surgical resection for colorectal, esophageal, or hepatopancreaticobiliary malignancy between 2010 and 2016. Veterans were excluded if they died within 9 months of surgery, rendering them ineligible for surveillance. National Comprehensive Cancer Network (NCCN) guidelines were used as a benchmark to assess adequate surveillance. Veteran-specific data, including operative characteristics, postoperative imaging and clinic visits were collected.

Results: Ninety-seven patients met inclusion criteria. Colorectal cancer was the most common diagnosis, representing 70% of the cohort. Average surveillance time was 39.8 months (range 0.5-77.8 months). Of the 97 patients, 11% received no postoperative imaging, and 7% had no cancer-directed clinic visits during the surveillance period. An additional 33% received less than recommended surveillance imaging, and 14% attended fewer than recommended cancer-directed clinic visits. By disease site, imaging and clinic follow-up at frequencies less than recommended by the NCCN recommended frequency was most common for patients with hepatobiliary cancer (63%) and colorectal cancers, respectively.

Conclusions: For Veterans with GI cancer who underwent surgical resection at our institution, a significant proportion received either no postoperative surveillance or less than recommended follow up for their disease based on national guidelines. This deficiency in surveillance is likely multifactorial—limited patient resources, unfamiliarity with guidelines, and geographic challenges—and represents an opportunity to explore reasons for poor adherence, followed by targeted improvement efforts, including telemedicine and education of both patients and providers.

“ROBOTIC ASSISTED GENERAL SURGERY: A PROPENSITY SCORE MATCHED ANALYSIS OF NATIONAL INPATIENT SAMPLE IN COST AND OUTCOMES.”

ABSTRACT #103 REF: 10978265

Introduction: Robotic assisted laparoscopic General Surgery procedures including cholecystectomy, ventral hernia, inguinal hernia, and colectomy are increasing in the United States. It is unclear if there is difference in terms of cost and outcomes when comparing robotic assisted versus straight laparoscopic operations.

Methods: The National Inpatient Sample from 2012-2014 was queried for the most common laparoscopic and robotic assisted laparoscopic procedures including cholecystectomy, ventral hernia, inguinal hernia, and colectomy. Trends of robotic adoption over the study period were analyzed. After propensity score matching for patient characteristics, outcomes of interest including length of stay, cost to the hospital, and postoperative complications were analyzed using conditional logistic regression and compared robotic assisted versus straight laparoscopic procedures.

Results: After propensity score matching, there was no difference in baseline patient characteristics between robotic assisted and straight laparoscopic procedures. Robotic assisted procedures resulted in significantly higher median cost (\$11,864 vs. \$10,044, $p < 0.0001$ for cholecystectomy; \$13,396 vs. \$10,403, $p < 0.0001$ for ventral hernias; \$14,957 vs. \$9,395, $p < 0.0001$ for inguinal hernia; and \$15,978 vs. \$13,552, $p < 0.0001$ for colectomy) but similar length of hospital stay for all analyzed procedures. Postoperative complications were comparable between robotic assisted and straight laparoscopic cholecystectomy and ventral hernia repair. However, robotic assisted colectomy was less likely to be associated with postoperative complications compared to straight laparoscopic colectomy (OR=0.53, 95%CI: 0.34-0.84). All procedures demonstrated increase in percent robotic adoption during the study period.

Conclusions: Robotic assisted General Surgery procedures including cholecystectomy, ventral hernias, inguinal hernias, and colectomies are increasing in volume and resulted in higher cost but similar lengths of stay when compared to straight laparoscopy. Robotic assisted colectomy was associated with less postoperative complications. Future studies are needed to analyze the downstream economic effects of robotic General Surgery expansion in today's healthcare climate.

WHAT SKILLS DO CLINICAL EVALUATORS VALUE MOST IN AN ORAL CASE PRESENTATION?

ABSTRACT #104 REF: 10977183

Background:

Trainees and practicing physicians are judged on how effectively they deliver oral case presentations (OCPs). Although we teach students to do OCPs and use tools to give them detailed feedback, no research has examined how evaluators actually assess students in the clinical setting.

Methods:

UND clerkship directors evaluated third year medical students' OCPs using the validated Patient Presentation Rating tool which assesses 17 components of an OCP along with an overall performance evaluation. Evaluations using this tool from the 2016-2017 and 2017-2018 academic years were analyzed using multiple linear regression and correlation matrices to assess how ratings of individual components of an OCP affected the overall assessment of a student's performance. For comparison, we surveyed preclinical medical students who had extensive simulation-based training in OCP's to determine how they expected their OCPs to be evaluated during their clinical years.

Results:

513 performance evaluations were analyzed of 137 students by 33 evaluators from 7 different clerkships at four campuses and several rural sites. Clinical evaluators' overall assessment of an OCP was highly associated with their assessment of a student's ability to describe the patient's situation ($\beta:0.117$, $p<0.02$), vital signs ($\beta:0.115$, $p<0.001$) and overall organization ($\beta:0.131$, $p=0.01$). Pre-clinical students agreed that the ability to describe the patient's situation was important in evaluation of an OCP, but also ascribed a high level of importance to the description of the chief complaint and the HPI. In contrast, less than a third of pre-clinical students believed that overall organization (32%) and presenting the vital signs (27%) would be critically important in assessing their OCPs.

Conclusion:

Students and clinical faculty have different ideas about what is important in an OCP. Aligning these perceptions through intentional curricular design and redesign of feedback instruments may facilitate teaching students how to communicate in the clinical setting.

RETROSPECTIVE ANALYSIS OF COMPLEX ABDOMINAL WALL RECONSTRUCTION USING REPRIZA: A NOVEL ACELLULAR DERMAL MATRIX

ABSTRACT #105 REF: 10974418

BACKGROUND

Large abdominal wall hernias remain a challenging problem involving patients with significant comorbidities and surgical treatments that are fraught with complications. Despite the advances in complex abdominal wall reconstruction (CAWR), the current synthetic and biologic meshes remain unsatisfactory. Recently, a novel acellular dermal matrix (ADM) called Repriza (Promethean LifeSciences, Inc.) was introduced and this study sought to determine its safety, efficacy, and complication profile when utilized for CAWR.

METHODS

An IRB-approved retrospective cohort study was performed at the University of Pittsburgh between 2012 and 2017 reviewing patients undergoing CAWR using Repriza ADM. Patient demographics, comorbidities, operative and post-operative details were collected. Multivariable logistic regression was utilized to predict hernia recurrence and other adverse clinical outcomes.

RESULTS

A total of 47 patients underwent CAWR with Repriza ADM. The majority of patients were females (70.2% female vs 29.8% male) with a mean age of 58 ± 12 years. The significant pre-morbid state of our cohort was highlighted by a BMI of 32 ± 7 and a high percentage of patients scoring ASA > 2 (70.2%) with significant cardiac (72.3%), respiratory (55.3%), diabetic (36.2%), and smoking histories (27.7%). The majority of patients had prior hernia repair (89.4%), with 34.0% having prior reinforcement of an abdominal wall defect. The majority of patient cases were designated as clean (76.6%) with only 12.8% needing enterotomy (clean-contaminated). Postoperative complications included seroma (12.8%), superficial wound infection (12.8%), dehiscence (12.8%), and DVT/PE (6.4%). Lastly, the hernia recurrence through Repriza was 10.6% and de novo hernia recurrence was 10.6%.

CONCLUSIONS

Repriza is a novel, safe and effective alternative for hernia repair and complex abdominal wall reconstruction, demonstrated by its lower hernia recurrence rate and comparable complication profile compared to other biologic mesh products.

EFFECTS OF PACKED RED BLOOD CELLS AND FRESH FROZEN PLASMA TRANSFUSION ON VENOUS THROMBOEMBOLISM RISK AFTER TRAUMA

ABSTRACT #106 REF: 10973738

Background

Transfusion is a known risk factor for venous thromboembolism (VTE) after trauma, but its magnitude isn't well defined. We hypothesize that packed red blood cells (PRBC) and fresh frozen plasma (FFP) will both contribute significantly and independently to VTE.

Methods

Retrospective review of 1168 patients admitted to the intensive care unit at a level I trauma center from 8/2011-1/2015 was performed. Those who died without a VTE were excluded. Univariate analysis and multivariate logistic regressions established independent predictors of VTE, with significance at $p \leq 0.05$.

Results

Overall VTE rate was 9.0%. For +VTE ($n=105$) & -VTE ($n=1063$), age, gender, and mechanism were similar, but injury severity score (27 ± 14 vs. 20 ± 12) was worse in the +VTE group (p48h) prophylaxis initiation (23.7% vs. 12.9%, $p=0.004$). Additionally, this group had more abnormal coagulation tests, femoral lines, vascular injuries, leg or pelvic fractures, longer operations, and higher AIS abdomen scores (all $p < 0.005$). Controlling for these factors, receiving 4 or more transfusions independently predicted VTE after trauma (2.81, 1.72-4.60). Furthermore, transfusion of any quantity also independently predicted VTE (3.15, 1.68-5.90), with a dose-dependent relationship between VTE & PRBC units (1.07, 1.03-1.11) but not FFP units. Finally, those with a VTE were 3.1 times as likely to have only PRBC transfusion, but 5.3 times as likely to have transfusion of PRBC and FFP.

Conclusion

Transfusion of any amount incurs VTE risk after trauma. PRBC alone increase this risk dose dependently, however, the risk almost doubles with concomitant FFP transfusion. Risk assessment and surveillance protocols should incorporate transfusion quantity and component.

THE OPTIMAL TIMING OF COLOSTOMY REVERSAL FOLLOWING DIVERTICULITIS

ABSTRACT #107 REF: 10973692

Introduction:

Hartmann's procedure remains a viable and common operation for diverticulitis requiring surgery. However, the timing for colostomy reversal remains widely varied and an optimal timing remains unknown.

Methods:

A retrospective analysis of the Healthcare Cost and Utilization Project State Inpatient Databases for California, Florida and Maryland was conducted. Patients with colostomy (ICD9 46.1, 46.10, 46.11, 46.13) for diagnosis of diverticulitis (ICD9 562.11) were linked to their colostomy reversal (ICD9 46.5, 46.50, 46.52). Outcomes of interest were mortality and postoperative complications including sepsis, transfusion, ileus, abscess and hospital length of stay (HLOS). In addition, patients with 90 day readmissions for abscess, sepsis or fistula were collected to assess late complications. Time to reversal was divided into terciles (early: 45-110 days; middle: 111-169 days; late: 170+ days) and outcomes were compared between all groups by logistic regression adjusted for comorbidities and age.

Results:

In total, 7,165 patients with at least 1 year of follow up time were identified and only 28.3% (2028) were reversed within 1 year. Older (OR 1.83 95%CI [1.42-2.38] for age>76 vs 2 chronic conditions vs 0-2), Medicaid (OR 1.52 95%CI [1.14-2.01] for Medicaid vs. private insurance), and uninsured patients (OR 3.00 95%CI [2.26-3.93] for uninsured vs. private insurance) were less likely to be reversed. When adjusting for patient characteristics, mortality, sepsis, transfusion, ileus, abscess, HLOS, 90 day readmissions with abscess, sepsis or fistula were similar between the reversal timing groups; however, readmission with abscess was less likely in the early vs. middle time period (OR 0.37 95%CI: 0.14-0.95).

Conclusions:

Less than one third of patients undergo colostomy reversal within 1 year following colostomy for diverticulitis. Outcomes based on time of reversal are similar and it appears safe to perform colostomy reversal as early as 2-4 months.

ASSOCIATION BETWEEN NON-INVASIVE FIBROSIS MARKERS AND PERIOPERATIVE MORTALITY AFTER HEPATECTOMY FOR HEPATOCELLULAR CARCINOMA AMONG US VETERANS.

ABSTRACT #108 REF: 10970236

Introduction: The clinical role of non-invasive fibrosis markers (NIFM) on the perioperative mortality after hepatectomy for Hepatocellular Carcinoma (HCC) is not well established. We evaluate the impact of NIFM on the perioperative mortality after hepatectomy for HCC among veterans.

Methods: Data from 475 hepatectomies for HCC were examined from 2000 – 2012 using the Department of Veterans Affairs Corporate Data Warehouse database. The severity of hepatic fibrosis was determined by the AST-platelet ratio index (APRI) and the Fibrosis-4 score (FIB-4). Patient demographics, 30-day, and 90-day perioperative mortality were evaluated.

Results: Mean age, MELD score, and BMI were 65.6 (SD:9.4) years, 9 (SD:3.1) and 28 (SD:4.9) kg/m², respectively. Most patients were male (98.3%) and Caucasian (55.4%). The most common operation was partial lobectomy (56.5%) followed by formal hepatectomy (41.9%). Out of the 475 veterans who underwent hepatectomy for HCC, 26.3% had cirrhosis utilizing APRI (index >1) and 29.2% significant fibrosis utilizing FIB-4 (score > 3.25). The 30-day and 90-day mortality were 5.9% and 10.1%, respectively. Multiple logistic regression analysis showed that APRI > 1 and FIB-4 > 3.25, after adjusting for age, race, MELD score and type of hepatectomy, were associated with an increased risk of perioperative mortality. APRI and FIB-4 Odds Ratio (OR) for 30-day and 90-day mortality were 4.2 (P=0.001), 2.5 (P=0.006) and 4.0 (P=0.001), 2.6 (P=0.004), respectively.

Conclusion: In this study, APRI > 1 and FIB-4 > 3.25 were independently associated with increased perioperative mortality among veterans undergoing hepatectomy for HCC. These findings suggest NIFM can be utilized to refine selection criteria for hepatectomy for HCC.

ANALYSIS OF PROFESSIONALISM ON SOCIAL MEDIA FOR VETERANS AFFAIRS PLASTIC SURGEONS

ABSTRACT #109 REF: 10970078

Introduction:

Facebook is a social media and networking website with over two billion monthly active users. Physicians who use this platform must be aware of security settings and remain professional on publicly-accessible, personal profiles. The purpose of this study is to identify unprofessional content on Facebook accounts of Veterans Affairs (VA) plastic surgeon and residents.

Methods:

Facebook was queried with the names of all VA plastic surgeons and current U.S. plastic surgery residents. Profiles were assessed for unprofessional or objectionable content using the VA's Professionalism in Patient Care Code of Ethics, noting hatred, profanity, violence, gambling, alcohol or drug consumption, and overtly sexual content. Statistical analysis was performed in SPSS (SPSS Inc., Chicago, IL).

Results:

A total of 155 VA plastic surgeons were identified and 38.1% had personal Facebook profiles: 30.5% were private; 37.3% were semi-private; 30.5% were publicly accessible. Six members (10.2%) had unprofessional content that included political, religious or racial hatred, alcohol use, or violence.

Of 899 current plastic surgery residents, 64.1% had Facebook profiles: 45.3% were private; 33.0% were semi-private; 21.7% were publicly accessible. Unprofessional content was present on 14.9% of profiles. Alcohol, profanity, nudity or sexual content, hatred, violence, drugs, and hazing were identified. No statistically significant differences in content were seen when comparing gender, program location, PGY-level, or program type.

Compared to attending surgeons, residents were more likely to have a Facebook profile ($p < 0.001$) with private settings ($p = 0.03$). There was no statistical difference in the number of surgeons with publicly visible unprofessional content when comparing residents to attending surgeons ($p = 0.32$).

Conclusion:

Many VA plastic surgeons and residents have publicly accessible Facebook profiles with unprofessional content. Surgeons should be aware of their digital footprint as medical professionals and representatives of VA Hospitals.

PRESENTATION OF PARATHYROID CARCINOMA WITHIN A NATIONAL VETERAN POPULATION

ABSTRACT #110 REF: 10964363

Introduction

Parathyroid carcinoma (PC) is a rare endocrine malignancy and thus not fully studied. It is thought to account for $\leq 1\%$ of all primary hyperparathyroidism (pHPT) cases. PC is difficult to diagnose preoperatively. We aimed at describing the presentation of PC within a national veteran population.

Methods

A retrospective review of the National VA Corporate Data Warehouse for the years 2000-2010 was performed. Patients with pHPT were identified using a validated algorithm applying the following criteria: serum parathyroid hormone (PTH) >88 pg/mL AND serum calcium >10.5 mg/dL AND serum creatinine <2.5 mg/dL. Only patients who underwent surgical resection for pHPT were included and divided into cohorts based on diagnosis of PC by ICD-9 code. Pearson's chi square and Wilcoxon rank-sum tests were utilized with an alpha level of 0.05.

Results

A total of 21,465 patients met criteria for pHPT during the study period. 1,679 (7.8%) of patients underwent operative resection for pHPT, of which 213 patients (1% of all pHPT) were diagnosed with PC. Both patients with benign pHPT and PC were predominantly male (87% vs. 92%, $p=0.05$) with similar median age (60 vs. 61 years, $p=0.87$). Patients with PC had similar median serum Ca (11) and lower PTH (119) in comparison to patients with benign pHPT (Ca 11, $p=0.73$; PTH 128, $p=0.05$). Rates of osteoporosis, fracture, renal stones, and decreased eGFR were not statistically different between cohorts.

Conclusions

This study offers one of the largest series of parathyroid carcinoma. The clinical presentation of PC did not differ significantly from pHPT, including serum Ca and PTH levels. This confirms the challenge of discerning PC amongst all pHPT cases preoperatively. A degree of clinical suspicion for PC should always be maintained, along with preparedness to change surgical plan intraoperatively as needed.

REVERSE PHASE PROTEOMIC ARRAY (RPPA) ASSESSMENT OF DIABETIC FOOT ULCER CELLULAR SIGNALING

ABSTRACT #111 REF: 10955197

The chronic diabetic foot ulcer (DFU) is a serious complication of diabetes frequently associated with complex infections and lower extremity amputations (LEAs). Using the reverse phase proteomic array (RPPA) data platform, we have documented the first assessment of the cellular signaling architecture of the DFU basal keratinocyte with correlations to clinical wound healing and significant ($p < 0.05$) biomarkers predictive of DFU healing (Journal of Diabetes Research, 2016, ID 1586927). The signaling protein analytes of this preliminary study were: IGF-1R β ; phospho-IGFR-1 β Y1135-1130; VEGFR1; c-Met; phospho-PTEN S380; PI3kinase; Akt; GSK-3 β ; mTOR; phospho-mTOR S2448; COX-2; NF- κ B/p65; iNOS; I κ B- α ; HIF-1 α ; p53; p16INK4a; β -Catenin; Caspase 3; Caspase 9; and Bak. Study cohorts included eighteen (n=18) unhealed DFU subjects, three DFU subjects (n=3) experiencing complete healing during the study and three (n=3) non-diabetic controls. DFU wound healing biomarkers were derived from the protein expression ratios of IGF-1R β with: PI3kinase, Cox-2, mTOR, p53, Bak and Caspase 9. The biomarkers document a significant correlation with healing outcomes suggesting threshold values of nodal signaling protein expression relationships that may regulate keratinocyte proliferation and migration. These data establish a role for the PTEN-modulated upregulation of Akt signaling as a potential initiator of downstream signaling protein kinase C (PKC) mediated uncoupling of endothelial nitric oxide synthase (eNOS) with excessive superoxide anion (O $_2^-$) production and decreased nitric oxide (NO) bioavailability. Increased signaling through AKT is supported by the increased phosphorylation of mTOR at serine 2448. These processes would lead to impairment of keratinocyte proliferation and migration, decreased expression of VEGF and chronic wound development. We will discuss how our future RPPA studies of DFU keratinocytes and fibroblasts will examine these, and other, signaling pathologies of impaired DFU healing. These studies may provide precision medicine for DFU management, the development of effective pharmacotherapies and, possibly, the prevention of LEAs for veteran DFU patients.

PREVENTING URINARY CATHETER REINSERTION (PUCR) IN VETERANS UNDERGOING VASCULAR SURGERY

ABSTRACT #112 REF: 10952454

INTRODUCTION: Veterans are often admitted overnight for vascular operations. Some are unable to void after urinary catheter removal due to benign prostatic hyperplasia (BPH), requiring catheter reinsertion and discharge home with a catheter. This quality improvement (QI) project aims to proactively identify and treat those at risk for urinary retention postoperatively, avoid catheter reinsertion, and improve the Veteran experience.

METHODS: We designed and implemented a QI protocol which screens patients undergoing CEA or EVAR using a validated assessment tool (AUA BPH Symptom Score Questionnaire) in the preoperative period. Those patients with a score of ≥ 8 are treated with three doses of tamsulosin beginning on postoperative day zero (POD 0). The use of a checklist assures appropriate documentation and referral to their primary care provider or urologist for continuation of therapy when indicated. On POD 7, a follow-up phone call encounter records any failures or complications associated with treatment.

RESULTS: Our QI protocol was initiated October 2017 and includes the validated assessment tool, PUCR checklist, and postoperative tamsulosin order set. Eight patients were successfully screened and treatment initiated in 3 (38%). Excluded patients either had a symptom score of < 8 ($n=3$) or were already taking BPH medications ($n=2$). Of the 3 treated, none required catheter reinsertion and all were prescribed long-term tamsulosin therapy. Interestingly, the 2 patients taking BPH medications at home required catheter reinsertion despite continuation of their BPH medications perioperatively.

CONCLUSIONS: Veterans with BPH may be unable to void after urinary catheter removal in the postoperative period. We have developed and initiated a proactive QI protocol which identifies and treats those at risk of urinary retention and catheter reinsertion with good results thus far. Facility-wide implementation of this QI protocol may reduce the risk of urinary catheter reinsertion and catheter-associated infections in the future.

DOES THE GENDER OF THE PRESENTER MATTER? ANALYSIS OF THE VA YOUTUBE CHANNEL

ABSTRACT #113 REF: 10937513

INTRODUCTION:

The Department of Veteran Affairs is a complex health care delivery system. Part of its mission is to connect with its diverse patient population with online platforms like YouTube. Female patients are increasing in the veteran population. It is not clear what effects the gender of the presenter on the VA YouTube VA Channel has on message content.

METHODS:

The VA YouTube Channel was accessed in November 2017 by two different reviewers. The top viewed 500 videos were examined and grouped: male presenter or female presenters. Inter-observer correlation was calculated based on a 50-video sample. All videos were examined for subject matter, duration of video, time since video posting, total views and if additional links were provided.

RESULTS:

A total of 429 videos were found. Inter-observer correlation was 0.76. There was no difference between the groups in terms of duration, views and time since posting. Female presented videos were more likely to have a link provided (77% vs. 64%; $p=0.004$, Fisher's Exact test). Of all the subject matter examined, only veteran life (12.5% vs. 31.4%; $p=0.0001$, Fisher's Exact test) and women's health (6.5% vs. 0.4%; $p=0.0003$, Fisher's Exact test) were found to be statistically significant in female and male presenters respectively. There was no difference in the other subject matter categories.

CONCLUSIONS:

In conclusion, we found similar video characteristics in terms of views, duration and time since posting between the two groups. Videos with female presenters were less focused on veteran life, more focused on women issues and more likely to have a have link for further information related to the video content. These results should inform the VA community of the need for more female voices in describing veteran life especially in this enlarging veteran population.

VOOGLE NOTES: A NATURAL LANGUAGE PROCESSING (NLP) APPLICATION THAT LEVERAGES TEXT REPORTS IN THE VA CORPORATE DATA WAREHOUSE (CDW) TO SUPPORT PROVIDER DECISION-MAKING FOR PATIENT CARE

ABSTRACT #114 REF: 10932164

Problem: Decision-making for patient care is often dependent on knowledge of the patient's prior medical history. Many veterans presenting with surgical disease have active medical histories dating back many decades, with significant events and chronic illness that have been managed in multiple VA hospitals. Although patient-specific information is recorded in provider text notes, this critical data is usually hidden within hundreds, or thousands, of pages of text stored in the VistA Text Integrated Utility (TIU) files. TIU notes are often utilized for administrative documentation, leading to the classic "needle-in-the-haystack" challenge faced by surgeons seeking historical information on complex patients. In the absence of a usable search function, the time required to identify needed information impairs workflow in a busy surgical clinic.

Background: For more than a decade the VHA has daily accrued patient information on millions of encounters from each of its 130 medical centers and thousands of clinics into the Corporate Data Warehouse (CDW). This data is mirrored in a secure research environment (Veteran's Informatics and Computer Infrastructure (VINCI) .

Methods: Working within the secure VINCI environment we had previously explored the feasibility of utilizing iKnow, a novel NLP program resident in Intersystems Cache', to investigate patterns within cohorts of patients. We postulated that it would be feasible to utilize iKnow to examine clinical text notes for a single veteran to enhance point-of-care decision-making. We developed a secure web-based application that accesses and indexes archived text notes (and limited structured data within the CDW), facilitating "Google-like" search capabilities.

Results: The resultant web-based application, which we have termed "Voogle Notes" facilitates exceptionally rapid in-depth search of large quantities of text notes for a specified veteran. We will demonstrate the iKnow indexing and search functions, and will make the intranet web link available to those in attendance.

WOUND SEVERITY SCORE IN PATIENTS WITH CRITICAL LIMB ISCHEMIA AND TISSUE LOSS UNDERGOING TIBIAL REVASCULARIZATION WITH CORONARY DRUG-ELUTING STENTS

ABSTRACT #115 REF: 10888758

Objectives: Despite promising clinical results, the use of drug-eluting coronary stents (DECS) in tibial revascularization remains limited. Through a retrospective review of our experience with tibial DECS in patients with critical limb ischemia (CLI) and tissue loss, we evaluate patency and TLR rates, wound severity score (WIFI), freedom from major amputation, and all-cause mortality.

Methods: Over a 4-year period, 40 tibial revascularization procedures were performed in 33 patients. Two patients were excluded given non-atherosclerotic indications. Ankle-brachial index (ABI) and WIFI scores before and after DECS deployment were examined. Paired t-tests were used to compare WIFI scores before and after DECS.

Results: 78 tibial DECS were deployed in 31 patients. Average age was 68.2 years (76.9% male, 23.1% female). Average follow-up was 12.2 months (range: 2-33.5). When calculable, average pre-op ABI was 0.68 +/- 0.27 which improved to 0.9 +/- 0.19 post-operatively ($p=0.003$). Mean pre-op WIFI scores were (1.8, 2.0, 1.3) which improved to (1.03, 0.48, 0.75, $p=0.009$, 0.001, and 0.02 respectively) post-operatively. Overall mortality was 3% (1/31) and no patient required TLR. Freedom from major amputation was 97%. 4 stents failed in one patient, for a total failure rate of 5.1% and a primary patency rate of 97% at the time of last follow-up.

Conclusions: Despite lack of an infrapopliteal peripheral indication and limitations in stent design, tibial DECS patency rates and clinical outcomes continue to be promising in appropriately selected patients. Expanding the indication and configuration of DECS to the tibial realm can lead to a larger clinical experience and more accurate evaluation of clinical outcomes.

NECROTIZING INFECTION OF THE UPPER EXTREMITY

ABSTRACT #116 REF: 10766428

Introduction: Necrotizing infection of the upper extremity is a rare, but potentially lethal diagnosis with a mortality rate of 20-30%. The plastic surgery service at the Malcom Randall VA Hospital treats all hand emergencies, including upper extremity infection, in the North Florida South Georgia System. The objective of the study was to evaluate our identification, treatment and outcome of these infections.

Methods: The IRB (#5201701525) approved a retrospective review of necrotizing infection of the upper extremity treated at the Malcom Randall by the VA plastic surgery service. Surgical cases over a nine-year period (June 5, 2008-June 5, 2017) were identified by CPT codes for amputation and/or debridement of the upper extremity. The charts were reviewed for evidence of necrotizing infection by clinical description or pathology report. The patients' age, sex, etiology, co-morbidities from their problem list, vitals and labs were recorded upon arrival to the hospital. The treatment and outcomes were recorded.

Results: Ten patients were treated for necrotizing infection of the upper extremity over a nine-year period. They were all men with an average age of 64. Most did not show evidence of hemodynamic instability upon hospital arrival. Seven of ten were treated with surgery within 24 hours upon hospital arrival. There were no perioperative deaths. Three had amputations at the wrist. Cultures grew a range of microorganisms. Nine out of ten patients were diabetics. They all had a minimum of two procedures, including debridement and closure.

Conclusion: There were no peri operative mortalities over a nine-year period in patients identified as having necrotizing infection of the upper extremity. This is attributed to an aggressive and well-coordinated, multi system approach involving emergency, surgical, ICU, and infectious diseases services. We did find that speed to diagnosis is an area that can be improved upon with a higher clinical suspicion.