Medications Given to Emergency Department Patients Who have Symptoms Related to Psychological or Mental Health Disorders

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Introduction: Emergency Department (ED) patients who have psychological or mental health disorders often have additional health issues or co-morbidities that require treatment during their ED stay. Often times, these patients have very long ED stays while they await psychiatric consultation or admission. Consequently, their medications must be given several times during their stay. This study was undertaken to identify the most common categories of drugs given to ED patients with mental health or psychological symptoms in order to be better prepared for their prolonged stays and, thereby, improving the care of these patients.

Materials and Methods: This was a retrospective observational study using public data files from the 2010 National Hospital Ambulatory Medical Care Survey for Emergency Departments (NHAMCS-ED). Each patient record has up to eight reported drugs which are described by name and by category. We compiled the information about all drugs given to patients whose “reason for visit” was related to psychological or mental disorders.

Results: The survey represents a total weighted sample of approximately 130 million ED patients, of which approximately 3 million had symptoms referable to psychological or mental disorders. It was reported that almost 40% of the study population received no drugs. Among those who did receive drugs during their ED stay, 26.7% of the drugs were related to the treatment of psychological or mental illness (anxiolytics 18.6%, antipsychotics 5.6%, and antidepressants 2.5%). Other major drug categories included: 16.2% analgesics, 14.3% electrolytes and vitamins, 9.8% anti-infectives, 6.5% gastrointestinal agents, 4.8% cardiovascular agents, 3.1% respiratory agents, 1.5% diabetic agents, and 1.5% topical agents.

Conclusions: Many ED patients who are being treated for mental or psychological disorders are also being treated for pain, infections, dehydration and malnutrition. Many also have acute or chronic gastrointestinal, cardiovascular, or respiratory conditions that may require multiple drug doses daily. It is important to have an extended ED treatment plan for these patients that addresses mental and physical conditions alike.

Helicobacter Pylori-induced Chronic Gastritis Confers an Increased Risk for Colonic Adenomatous Polyps

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Introduction: Helicobacter pylori (Hp) confers a significant risk for the development of colonic adenomatous polyps and adenocarcinoma in non- Hispanic populations. This association among Hispanics remains unexplored.

Materials and Methods: A retrospective cross-sectional study, approved by TTUHSC IRB, was conducted on Hispanic patients who had an esophago-gastro-duodenoscopy and a colonoscopy between 2008 and 2012 with collection of demographic, endoscopic and histopathological data. Unadjusted logistic regression analysis as well as Fisher’s exact test was carried out to examine the odds ratio for Hp+ in relation to any colonic neoplastic changes.

Results: The average age was 58 (±12) with 62% females (n=427). The odds for Hp+ was 2-fold higher in patients with colonic hyperplastic polyps as compared patients without hyperplastic polyps (OR: 2.13, 95%CI: 1.255, 3.621, p=0.005). The prevalence of adenocarcinoma in Hp+ group (10%) was higher as compared with Hp- (5%), although statistically non significantly. In the subset of positive colonoscopy we found more likely odds of Hp+ in patients with colonic adenocarcinoma (p=0.073), although the odds ratio for tubular adenoma was 23% less in Hp+ group as compared with Hp- group (p=0.078).

Conclusions: Hp chronic gastritis confers a trend to an increased risk for the development of colonic adenocarcinoma in Hispanics. The underlying mechanism of this risk association and whether eradication therapy in Hp infected subjects could reduce the risk of colorectal cancer still requires further investigation.

_palpitations in an elite endurance athlete_

Gerardo Vazquez, M.D.

History: 43-year-old male elite endurance athlete presents to the Continued on page 23
Sports Medicine clinic with a chief complaint of worsening palpitations for the past week. The palpitations occur at rest, last a few seconds, and are not associated with syncope. He has had three previous episodes of atrial fibrillation each occurred after drinking a cold liquid. He was taken to the ED during the first episode, however, he spontaneously cardioverted to sinus rhythm. Subsequent episodes were broken by running on a treadmill. The patient is consistently training for Ironman and Olympic distance triathlons.

Physical Examination: Well developed male in no acute distress. Has a pulse of 48 beats per minute and blood pressure of 115/83. Cardiovascular exam was normal. Respiratory and abdominal exam were both unremarkable. Musculoskeletal exam is normal.

Differential Diagnosis:
Athletic Heart
Ischemic heart disease
Paroxysmal atrial fibrillation

Tests and Results: EKG in clinic shows sinus bradycardia with premature ventricular contractions, left axis deviation, right ventricular hypertrophy, incomplete right bundle branch block. Echocardiogram showed mild concentric left ventricular hypertrophy with normal structure of the heart. Holter monitor was negative. Stress test was negative.

Final Diagnoses: Athlete’s Heart with PVCs Vagal-ly-inducible atrial fibrillation

Treatment: After discussion with his cardiac electrophysiologist, it was decided that he did not have significant risk to necessitate anticoagulation therapy. Patient was advised to return to clinic if he notes that his palpitations become persistent.

Outcome: Patient continues to have palpitations, but continues to train 18-20 hours per week.

Don’t Let It Under Your Skin: Unusual Cause for Rash Kaclie

Cassaday, D.O.; Gerardo Vazquez, M.D.

History: 20 year old female collegiate basketball athlete presents with a pruritic rash on her left foot for a week. She states the rash itches worse at night and has spread from between her toes to the dorsum of her foot. She has tried cortisone cream with no improvement. She denies having a similar rash in the past. She denies sick contacts.

Upon further questioning, patient states the rash has become more pruritic over the past week, but the onset was 1 month prior after a tournament in Puerto Rico. Patient admits to walking barefoot on the beach while in Puerto Rico.

Physical Exam: Left foot: raised, erythematous skin tracking with serpentine appearance between 2nd and 3rd toes, extending proximally 5 cm onto the dorsum of the foot. The area is non tender to palpation. The remainder of examination is unremarkable. Differential Diagnosis: Tinea Pedis, Scabies, Contact Dermatitis, Superficial Thrombophlebitis, Parasite Infection, Creeping Hair.

Image: Foot Picture

Final Diagnosis: Cutaneous Larva Migrans

Treatment: The patient was prescribed Albendazole. However due to cost prescription was changed to Ivermectin.

Outcome: The rash improved after treatment with Ivermectin.

Follow up: Patient was re-examined 1 week after completion of Ivermectin. The skin tracking was diminished. Patient was counseled if the tracking was to re-emerge she should seek medical attention. The patient was educated disease transmission occurred by walking barefoot on a feces infested beach. Sandals are recommended when walking on the beach.

Use of Tissue Expanders in a Skin Deficient Hernia with the Component Separation Technique: A Case Report

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Introduction: Reconstruction of skin deficient, complicated, recurrent ventral hernias is a challenging problem. There is no current consensus in the subsequent management in those patients who do not have sufficient skin to close the wound. In this report, we describe our experience in the management of a patient with a complicated ventral hernia utilizing component separation technique (CST) in conjunction with cross-linked porcine dermal mesh, and tissue expanders.

Materials and Methods: A 64-year-old male initially presented with bilateral inguinal hernias treated laparoscopically which was complicated by perforation and underwent exploratory laparotomy with bowel resection. His post-operative course was complicated by sepsis and an enterocutaneous fistula, which was managed non-operatively. An incisional hernia developed, and tissue expander placement was planned to close the abdomen. They were expanded with 120 cc of saline weekly, until the implants were filled to a final volume of 1000 cc of saline.

Results: The tissue expansion process was well tolerated without signs of infection. The fistula and hernia were repaired by bilateral CST using bioprosthetic mesh. The expanders successfully stretched the skin to provide coverage over the ventral hernia mesh repairs without complication.

Conclusions: What is unique about the experience described in this article is the use of tissue expanders to successfully close a complicated ventral hernia arising from an infected abdomen, further complicated by the development of a subsequent enterocutaneous fistula. To our knowledge, the use of tissue expanders for simultaneous abdominal wall reconstruction and ECF repair in

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this situation has not been described in the literature.

The Infant with Depressed Sensorium and Shock: Was It Candy or Soap?

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Introduction: An 8- month old well male was seen biting into a laundry detergent gel pod and ingested a portion of the contents. The boy started to have symptoms seven hours later including obtundation, emesis, diarrhea and fever. He required intubation for his depressed neurologic status, and received 20mg Dexamethasone for presumed airway involvement. He had hypocalcemia and severe metabolic acidosis requiring volume resuscitation and bicarbonate supplementation. He suffered a short episode of ventricular tachycardia which required chest compressions. He suffered acute liver shock: AST and ALT consistently doubled on day 2 of illness reaching as high as 6253 and 2294 respectively. Coagulation labs were significantly prolonged requiring Vitamin K supplementation. Factor V & VII were low. Aspirin was also found in routine screening labs despite no aspirin being available in the house. An EKG showed prolonged QTc at 543 ms and elevated troponin, both of which trended to normal by discharge. ECHO normal. Endoscopy showed multiple petechial gastric ulcers without damage to the esophagus.

Conclusions: The relative new availability of gel filled laundry detergent pod presents a new frontier in finding the deleterious effects and possible treatments for ingestions. The few cases reported include aspiration with chemical pneumonitis and one with oral and esophageal involvement, but not gastric. We present a child with accidental ingestion of a gel laundry detergent pod who presented with anion gap metabolic acidosis, persistent lactic acidosis, gastric ulcers, hypocalcemia, prolonged QTc, elevated troponins, and acute liver shock. The high level of acidosis was responsible for decreased perfusion and subsequent shock. The finding of aspirin has been attributed to perfumes used in these pods which use salicylate.

Measuring the Continuity of Care among Pediatric Residents in Texas Tech–El Paso 2010-2013

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Introduction: Continuity is the cornerstone of primary care. It refers to the ongoing relationship between a patient and his healthcare provider. Emphasis is placed on minimizing transitions from one provider to the next. Further, the Resident Review Committee of the Accreditation Council on Graduate Medical Education stresses that residents ought to have a panel of patients that they see and follow up regularly. For this reason we did a pilot study; we sought to measure the continuity among the Pediatric residents at TTUHSC El Paso. This effort was part of our Quality Improvement Measure.

Materials and Methods: Permission obtained from all pediatric residents (signed consent). We collected data from the Information Technology (IT) Department on all pediatric residents. Included all CC visits and repeat visits. We calculated Total visits, Actual patient visits, repeat visits, Cumulative repeat visits. We compared the data across PG levels. We calculated continuity in terms of repeat visits.

Results: Residents saw an average of 450/27 months; 337/16 months and 94/5 months. This translated to 4.5 CC/day and 5/CC for R2 and R3. Residents saw 6% of total pt in R3 more than once and R2 5% and R1 saw 3% of their total visits more than once. This data shows a lack of both resident and patient continuity affording longitudinal primary care experiences. This current study utilized the UPC index to calculate for the continuity index. In the future, we intend to use the other validated formulae to have a better estimate of the different aspects of continuity. Some of these formulae include: Modified Modified Continuity of Care Index (MCCI), Continuity of Care Index (COC), and Sequential Continuity Index (SeCon). We will compare data gathered with national statistics.

Conclusions: It was apparent from out data that we needed to come up with solutions to improve the continuity experience for residents in our department. We have since implemented several core measures:
1) Residents were energized to be more proactive in recruiting and retaining patients with business cards; 2) Patients were called to give them updates about labs requested during the previous visit; 3) patients seen by the residents were tagged under their names when they call to make appointments.

Opsoclonus Myoclonus Ataxia in a Case with West Nile Virus Encephalitis

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Introduction: Opsoclonus myoclonus ataxia (OMA) is a rare but distinct disorder that can be paraneoplastic or idiopathic in origin. Many reports showed an association between paraneoplastic OMA and underlying cancer with few reports showed an association between non-paraneoplastic OMA and viral encephalitis.

Case Presentation: We report a case of 48 year old woman with past medical history of endometrial cancer on chemotherapy who presented with encephalopathy. Patient was found to be febrile (102 F) and disoriented with Glasgow coma scale (GCS) of 10. Her head computerized tomography was normal while her cerebrospinal fluid cell count showed elevated leukocytes with lymphocytic predominance. During her hospital stay the patient developed spontaneous, arrhythmic, and conjugate saccadic movements of both eyes in all directions of the gaze without a saccadic interval associated with a brief and, shock-like, involuntary, movements

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of all extremities which is consistent with opsoclonus myoclonus ataxia. The cerebrospinal fluid came back positive for West Nile virus. Despite all the possible supportive therapy, her condition stayed the same and she was transferred to long term care facility.

Conclusions: The present case highlights the possible association between the West Nile virus encephalitis and opsoclonus myoclonus ataxia syndrome.

Genetic Variants in the SORL1 Gene are Associated with Age at Onset of Alzheimer Disease

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Introduction: Alzheimer disease (AD) has a strong genetic predisposition. New diagnostic criteria have been issued by expert international workgroups and age of onset continues to be a major concern. Genetic variants in neuronal sorting receptor (SORL1) gene were associated with the risk of AD; however, few studies have focused on the association of SORL1 with the age at onset (AAO) of AD.

Materials and Methods: This study investigated the association of 43 single nucleotide polymorphisms (SNPs) in SORL1 with the AAO of AD by using the Kaplan-Meier survival analysis and the Cox proportional hazards model in 791 AD patients and 782 controls.

Results: Both logrank test and Cox regression model showed that five SNPs (rs1784934, rs676759, rs560573, rs593769 and rs11218313) were associated with the AAO of AD in the male sample; while one SNP (rs17125558) was associated with the AAO of AD in the female sample (P<0.05). SNP rs560573, previously associated with the risk of late-onset AD, showed the most association with the AAO in the male sample (P=0.0077 for logrank test and P=0.0117 in the Cox model with hazard ratio = 1.47, 95% CI =1.09-1.97). The mean AAO was approximately 2.5 years earlier in individuals who were homozygous for the minor allele compared with those who had at least one major allele.

Conclusions: These findings provide evidence of several genetic variants in SORL1 influencing the AAO of AD and will serve as a resource for replication in other populations. Future functional studies of this gene may help to better characterize the genetic architecture of the AAO of AD.

CenteringPregnancy® as an Opt-Out Model

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Introduction: CenteringPregnancy® is a proven intervention program designed to improve patient satisfaction, health litera-

Materials and Methods: CenteringPregnancy® was introduced as an opt-out model in the Ob-Gyn Nurse Midwifery clinics starting October 2013. A total of 43 women in five groups separated by gestational ages have been enrolled between October and December 2013. One third trimester group, 2 first trimester groups, and 2 second trimester groups have been formed. On average ten group sessions are conducted and enrollment is limited to approximately 10 patients. Data on attendance, delivery, and satisfaction is collected and analyzed.

Results: Demonstrate that 3 women have graduated from the program and 6 women have delivered. All women delivered at term (>37 weeks) with 73% of women delivering vaginally and 17% delivering via C-Section. Attrition rate for enrolled women is approximately 30% and reported reasons for dropping out are listed as scheduling conflicts and transportation.

Conclusions: CenteringPregnancy® is a validated program that can enhance a women’s education and empowerment throughout her pregnancy. The department will continue to expand services provided in this area to include high risk pregnancies in the future. In addition, the department is planning to focus on providing off-site and after-hour services to capture a higher number of enrollees with the intention to improve patient satisfaction.