

## Found 165 Abstracts

**ABSTRACT FINAL ID:** M-01;

**TITLE:** Treatment of Multiple Myeloma with Oral Methylprednisolone as a Cause of Sigmoid Diverticulum Perforation: Case Report.

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Multiple myeloma is a debilitating malignancy of plasma cells which may result in leukopenia, anemia and thrombocytopenia. Its treatment includes the use of glucocorticoids which can produce acute perforation of colonic diverticula, a disease associated with a high rate of late sequel and mortality. We aimed to report the case of a 76 year old female patient with multiple myeloma who received treatment with corticosteroids and presented sigmoid diverticulum perforation. CASE REPORT: The patient received 16mg/d oral methylprednisolone for 8 months and was admitted in the emergency department with diffuse mild abdominal discomfort and fever (38.8 °C). She had high CRP values, but normal white blood cell count and serum biochemistry. Her clinical condition remained unchanged for 3 days, when the CT-scan showed a colonic perforation. She underwent an exploratory laparotomy that revealed sigmoid diverticular perforation and diffuse peritonitis by free purulent and faecal fluid. A Hartmann operation was performed, the postoperative recovery was normal and the patient was discharged the 8th day. The bowel was reconnected 2 months later. DISCUSSION: The risk of colonic perforation may relate to intracolonic pressure and mucosal barrier function in the wall of diverticula; steroids cause alterations in structural protein synthesis, thus decreasing mucosal repair and renewal. Furthermore, the impairment of the inflammatory process leads to the absence of signs of peritonitis. Therefore, the diagnosis of peritonitis is delayed. The delay in diagnosis contributes to a high mortality rate. High rate of suspicion, prompt radiologic examination and suitable surgical treatment are mandatory for these patients.

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**ABSTRACT FINAL ID:** M-02;

**TITLE:** A Rare Complication of Boerhaave's Syndrome: Tension Pneumothorax

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Boerhaave's syndrome is a full-thickness spontaneous perforation of the esophagus with a high mortality rate. The mechanism is a sudden rise in intraesophageal pressure after forceful emesis. Clinical presentations may vary and can depend on the cause, location, size, degree of contamination, and site of injury. Patients may present with abdominal pain, pneumothorax, hydropneumothorax, and pneumomediastinum. Chest radiographs can suggest the diagnosis. Elevated levels of amylase in an aspirated pleural fluid may suggest esophageal perforation. Thoracic Computerized Tomography (CT) or emergency endoscopy is most often used to confirm the diagnosis. Patients with systemic symptoms and signs after perforation need operative management. Tension pneumothorax secondary to esophageal perforation has been rarely reported in the medical literature. CASE REPORT: In this report, a case of tension pneumothorax secondary to spontaneous esophageal rupture in a 44 year old male is presented. He presented with chest pain to another institute, was misdiagnosed as an acute coronary syndrome and referred to our tertiary emergency department. After physical examination and chest x-ray, the patient was diagnosed with a tension pneumothorax on the left and immediately decompressed with needle thoracostomy which was followed by tube thoracostomy. Perforation of the oesophagus was suspected when hematinized blood was observed during tube thoracostomy drainage fluid. Diagnosis of Boerhaave syndrome was confirmed by endoscopy and contrast enhanced thoracic CT. The perforated oesophagus was surgically repaired.

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**ABSTRACT FINAL ID:** M-03;

**TITLE:** A 49-year Old Man with Abdominal Pain

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: The patient is a 49-year old man who presented to the ED because of abdominal pain. The symptoms started one week before presentation to our ED. The pain was vague and felt all over the abdomen. No significant nausea or vomiting at that time. The pain was not affected by position or meals. The patient presented to local health care providers several times and received analgesics every time and finally diagnosed as nonspecific abdominal pain and discharged home. Today before presenting to our ED, the patient had a visit with his physician and referred by him to our center because of systolic blood pressure of 70 by pulse. On arrival the patient was in pain but did not move on bed. In past medical history there was nothing remarkable. And besides H2 blockers and pump inhibitors the patient did not use any kind of drugs. On examination the patient was lethargic, cooperative and oriented. The vital sign were as follows: BP: 70mmHg By palpation, PR: 120bpm, RR: 22/min, T: 37.2 orally. The patient was pale. Chest exam was unremarkable. Abdomen was somewhat distended, guarded with generalized tenderness, but there was no rebound tenderness. The rest of the physical exam was OK.

Rapidly two large-bore peripheral venous accesses were obtained and the patient received 1 liter of ringer lactate. Sample for laboratory analysis (CBC, BS, BUN, Cr, Na+, K+, AST, ALT, ALP, Amylase, Lipase) were obtained. Two units of cross matched RBC were reserved. Abdominal and CXR were normal. Ultrasound study showed abundant free liquid in the abdomen but liver, kidneys and pancreas were OK and abdominal aorta had normal diameter and contour. Lab data requested were all within normal limits except for Hb of 3 g/dl. On serial examinations he did not show any improvement and the patient was showing signs of rebound tenderness. At this time the patient was taken to the operating room because of shock (not responsive to 3 liters of ringer lactate) and ultrasound findings. During the surgery 3 liters of blood was suctioned from the peritoneal cavity and the source of bleeding was diagnosed to be dissection of splenic artery aneurysm.

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**ABSTRACT FINAL ID:** M-04;

**TITLE:** Abdominal Attacks Associated with Free Fluid in the Pouch of Douglas may mean Hereditary Angioedema?: A Case Report

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Hereditary angioedema is a rare disease, associated with quantitative or qualitative genetic deficiency of C1-esterase inhibitor. During attacks, endothelial cells in postcapillary venules contract, which allows fluid and plasma proteins to leak between them. Symptoms include recurrent skin swellings, abdominal and laryngeal attacks. Recurrent abdominal pain attacks have been reported to occur in majority of cases. Laryngeal edema is responsible for death in 20-30% of untreated cases. The disease has often been misinterpreted by clinicians. CASE REPORT: A 36 years old women presented to our Emergency Department with crampy abdominal pain. At the clinical examination, we found tenderness of the abdomen on palpation. Usual laboratory evaluation was normal and abdominal ultrasound found a transonic image in the Douglas space. She was sent to gynecology where she refused the laparotomy. She was sent to a regional gastroenterology clinic where she was diagnosed with angioedema. She took Danazol and she had a period without attacks. Then the attacks reappeared like abdominal recurrent pain associated with swelling of the hands. Abdominal ultrasounds found edema of intestinal wall. The symptoms release to fluid and electrolytes rebalancing and symptomatic treatment. She is special from nonspecific symptoms and the risk of the occurrence of fatal laryngeal edema. DISCUSSION: 1. Hereditary angioedema is a rare disease characterized sometime only by abdominal pain attacks. 2. Abdominal ultrasound may find free intraperitoneal fluid or edema of intestinal wall. 3. The risk of this patients is the occurrence of fatal laryngeal edema.

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**ABSTRACT FINAL ID:** M-05;

**TITLE:** Spontaneous Gallbladder Perforation and Hemoperitoneum after Cholecystitis and Anticoagulant therapy

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: This is a case report of spontaneous gallbladder perforation and hemoperitoneum after cholecystitis. It is a rare manifestation of gallbladder disease. We assume that the course of events underlying this case was acute septic cholecystitis caused by the obstruction of the cystic duct by gall stones. There was a compression of the blood supply that led to ischemia, necrosis, and finally rupture of the gallbladder and bleeding into the peritoneal cavity. The bleeding was aggravated by the use of anticoagulant therapy. Hemostasis was achieved by vascular embolization. DISCUSSION: Although hemoperitoneum as a result of gallbladder bleeding is very rare, it should be considered in the differential diagnosis of intra-abdominal bleeding.

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**ABSTRACT FINAL ID:** M-06;

**TITLE:** Comparison of the Diagnostic Value of Barium Meal and Endoscopy Method in the diagnosis of Upper Gastrointestinal Disease

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Upper gastrointestinal disease is the one of common diseases in people, thus finding the accurate and the correct method to earlier diagnosis of this problem is necessary. In this study we want to compare the method of barium meal and endoscopy, to determine which has more value in diagnosed upper gastrointestinal disease. **METHODS:** We considered 60 outpatients with GI problems referred to Emam Hossin Hospital during 3 month. These patients undertook barium meal method after 6-8 hours fast and after 24 hours, endoscopy and biopsy (if ulcer visualized) was performed on these patients. In this situation the endoscopist had no information about the barium meal results. Barium meal results were discussed by at least 3 radiologists and endoscopic method was performed by one endoscopist. (Before performing the barium meal and endoscopy the patient was fasted).

**RESULTS:** Diagnose of esophageal disease by the barium meal method has a diagnosis value the same as endoscopy in diagnosing 80% of esophageal cancers and polyps but in esophagitis and candidiasis endoscopy had better than barium. The barium meal of 60% was reported normal by 3 radiologists have a gastric ulcer in endoscopic method and have cancer in biopsy. Barium meal of 65% and 50% and 100% was reported normal by 3 radiologists who had gastritis and polyp and gastric varices respectively in endoscopic method. Barium meal of 9% was reported normal by 3 radiologists in patients who duodenitis and erosion on endoscopic method in duodenum. Barium meal method has a better diagnostic value rather than endoscopy in diagnosis of duodenal diverticuli in diagnose of duodenum disease. **CONCLUSION:** We recommend all the patients with symptoms and signs of upper gastrointestinal problem despite a normal barium study should undergo endoscopy procedure.

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**ABSTRACT FINAL ID:** M-07;

**TITLE:** Diagnosing Abdominal Pain in Adults: Is this the Fast Lane ?

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: A 62 year old man arrived in the emergency department (ED) with complaints of recent intermittent stabbing left fossa pain and tenesmus. Normal bowel habits. Clinical examination shows a healthy man, with abdominal hypoperistalsis, guarding and left fossa pain on percussion. Vital signs within normal range; VAS is 6/10. Further examination is unremarkable, as are the lab results. Abdominal X-ray shows slightly distended bowel loops and bilateral renal calculi. Ultrasound (US) demonstrates an ovaloid hyper-reflective area in the left fossa. The radiologist suggests a computed tomography (CT) scan to rule out omental infarction or peridiverticulitis. Hereby an epiploic appendagitis at sigmoid level is confirmed. The patient is discharged from the ED the same day. DISCUSSION: Abdominal pain comprises 5 to 10 percent of ED visits. Emergency physicians should be able to determine which patients can be safely observed and which require further investigation or urgent specialist referral whilst being cost and time effective. The elderly in particular pose diagnostic challenges leading to time consuming workups [1]. History and physical examination have poor sensitivity in diagnosing the different causes of abdominal pain. Indiscriminate use of plain radiographs is an extremely low-yield practice. US is rapid and can be performed at bedside in unstable patients. In our case US failed to confirm a solid diagnosis. CT scanning has high sensitivity and specificity, particularly in the elderly or in the patient with undifferentiated abdominal pain [2]. Epiploic appendagitis has pathognomonic features on CT scan, confirming the diagnosis. In conclusion, emergency medicine demands triage, diagnosis and treatment in a timely manner. ED physicians have a key role to play in implementing diagnostic pathways to guide them rather than depending on current practice. References: 1. Hustey FM et al. The use of abdominal computed tomography in older ED patients with abdominal pain. Am J Emerg Med 2005; 23:259. 2. Stroker J et al. Imaging patients with acute abdominal pain. Radiology 2009; 253: 31.

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**ABSTRACT FINAL ID:** M-08;

**TITLE:** Vaginal Impalement Injury in an Adolescent Girl

**ABSTRACT BODY:**

**Abstract Body:** Objective: Pediatric perineal impalement injuries are relatively uncommon and are often related to accidental falls on offending objects, sexual abuse or assault. The appropriate clinical management of such injuries can be difficult, because their severity may not be reflected accurately by the external appearance of the perineum. Visceral organs injury may be encountered, even in the absence of significant bleeding and symptoms.

Herein, we report a case of vaginal impalement without injury to visceral organs in an adolescent girl.

Case: A 16-year-old girl was admitted to our emergency department (ED) with a vaginal impalement injury. She was fallen onto the metal stick of a bathing mat when she had slipped in the bathroom. The patient underwent an examination under anesthesia (EUA) in the emergency operating room to evaluate the extent of the perineal injury and to repair the injury. Vaginoscopy findings showed a 5 cm laceration through the vestibulum vagina into the posterior vaginal wall involving the posterior hymen (Fig.1). Cystoscopy and rigid sigmoidoscopy findings were unremarkable. The vaginal wall and hymen were repaired in layers with adequate wound drainage. She was continent with a fairly good cosmetic result at follow-up control after 3 months.

Conclusion: All pediatric patients who sustained perineal implament injury should overlook for multi-system trauma and undergo routine EUA to evaluate the extent of concomitant injury to the urogenital or anogenital tract. Penetrating perineal injuries without anorectal injury can be treated with primary wound closure, drainage and broad spectrum antibiotics. The prognosis in childhood is good, even in cases with severe anorectal damage

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**ABSTRACT FINAL ID:** M-09;

**TITLE:** Isolated omental cyst hydatid-induced omental torsion in a child

**ABSTRACT BODY:**

**Abstract Body:** Background: Hydatid disease (HD), also known as echinococcosis or hydatidosis, is a considerable public health problem in the endemic regions such as Middle east and Mediterranean countries. Acute abdomen caused by primary torsion of the omentum with hydatid disease in an adult has been reported previously in the literature. Here, we present a child with omental torsion caused by isolated omental cyst hydatid. The patient was diagnosed as having acute appendicitis at the emergency department (ED), whereas pathologic specimen came out as isolated hydatid cyst attached to the greater omentum.

Case : A 8-year-old male was admitted to the ED with right lower quadrant pain, nausea and anorexia On physical examination abdominal tenderness was observed over the right iliac fossa, but muscular rigidity was not found. Increased white blood cell count (13.800 leukocytes/mm<sup>3</sup>) was noted in the whole blood count. Based on the clinical and laboratory findings, the initial diagnosis was that of acute appendicitis and the patient was submitted to laparotomy . At laparotomy, a moderate amount of clear serosanguinous fluid in the right iliac fossa was noted. The appendix was normal macroscopically and excised routinely. After a thorough examination of the abdomen, a cystic mass attached to the greater omentum with a peduncle was observed. The omentum was found congested and hemorrhagic, also rotated on the long axis, several times in a clockwise manner. Complete surgical resection of the cystic structure with the twisted omentum was performed (Fig.1). Histopathological examination of the resected material revealed hydatid cyst of the omentum and hemorrhagic necrotic fatty tissue with nonspecific inflammatory infiltration.

Conclusion: Hydatid disease associated with omental torsion represent an unique topic, especially with reference to epidemiological and diagnostic problems. It can be quite difficult to be distinguished from common causes of acute abdomen such as acute appendicitis. Rare localizations of hydatid disease should be included in the differential diagnosis of cystic masses in the abdominal cavity, especially in endemic regions.

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**ABSTRACT FINAL ID:** M-10;

**TITLE:** Paraduodenal hernia: a rare cause of abdominal pain

**ABSTRACT BODY:**

**Abstract Body:** Introduction:

Internal abdominal hernias are rare conditions, accounting for 0.2- 0.9% of all intestinal obstructions. Paraduodenal hernias are the most common type (53%) of all internal abdominal hernias. They occur when the small bowel protrudes through a peritoneal or mesenteric aperture into the peritoneal cavity. Herniation in the left paraduodenal fossa (fossa of Landzert) occurs more frequently than herniation into the right fossa (fossa of Waldeyer). These hernias may be either acquired or congenital.

Case Description:

A 40-year-old man presented at the emergency department with a 2-day history of intermittent abdominal cramps, nausea and restlessness. The pain started postprandial and had moved from the lower belly to the left upper quadrant of the abdomen. In addition, defecation urgency occurred with constipation. He had no history of previous abdominal surgery. Physical examination revealed reduced bowel sounds and tenderness in the left upper quadrant of the abdomen. Blood and urine investigations were normal.

Plain abdominal radiography demonstrated a slightly distended small bowel loop in the left upper abdomen without other signs of bowel obstruction.

Abdominal computed tomography (CT) with oral and intravenous contrast revealed a sac-like cluster of mildly distended proximal small bowel loops between the pancreatic head and stomach. There were no CT signs of incarceration.

The patient underwent surgery. Laparotomy revealed a left-sided congenital paraduodenal hernia without gangrene.

Discussion:

The clinical diagnosis of internal hernia is difficult because of its non-specific presentation. Most patients present between the 4th and 6th decade of life (mean age 38.5 years). Men are 3 times more affected than women. CT is a valuable tool in the assessment of presence and type of herniation and in the evaluation of possible complications. Early surgical intervention should be performed to minimize the morbidity and mortality associated with this condition.

Conclusion:

Although rare, the diagnosis internal abdominal hernia should be included in the differential diagnosis of small bowel obstruction.

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**ABSTRACT FINAL ID:** M-100;

**TITLE:** How useful are erythrocyte sedimentation rate and C-reactive protein in the diagnosis of acute orthopaedic infections in children?

**ABSTRACT BODY:**

**Abstract Body: Introduction:** Acute Orthopaedic Infection (AOI) manifests as osteomyelitis, septic arthritis and pyomyositis. These are rare diseases with serious sequelae, but are often difficult to diagnose clinically and there is no definitive test to differentiate AOI from other disorders. Erythrocyte Sedimentation Rate (ESR) and C-Reactive Protein (CRP) are helpful, but there is no consensus as to whether one or both is better. This study aimed to determine the usefulness of ESR and CRP in the diagnosis of children with AOI.

**Setting:** Tertiary paediatric emergency department

**Methods:** A retrospective analysis of children, aged 0-14 years, who had an ESR and CRP and an acute atraumatic orthopaedic presentation was performed over 1 year. Diagnostic performance of ESR and CRP were compared using McNemar's test. Sensitivities, specificities, Positive (PPV) and Negative Predictive Values (NPV) were calculated using cut-off values of 20mm/hr for ESR and 10mg/l for CRP, and Receiver Operating Characteristic (ROC) curves were drawn.  $P < 0.05$  was considered significant.

**Results:** Of 514 patients, 28 had orthopaedic infections. The median and inter-quartile range of ESR and CRP in these patients were 59 (39-80)mm/hr and 42 (7-102)mg/l respectively. Both were higher than levels in other diseases ( $p < 0.001$ ). ESR had 86% sensitivity, 84% specificity, 24% PPV and 99% NPV and CRP had 71% sensitivity, 92% specificity, 33% PPV and 98% NPV. The area under the ROC curve was 0.876 for ESR and 0.915 for CRP, but there was no difference in their performance ( $p = 0.289$ ). Intercurrent infections occurred in 12% of patients without an orthopaedic infection and 27% had a history of recent illness.

**Conclusions:** Both CRP and ESR help to diagnose children with AOI, but the results may be confounded by intercurrent illnesses and must be interpreted in the context of the patient's history, examination and test results. There is not enough evidence, however, to conclude whether ESR or CRP is superior. A larger multi-centre prospective study is required to establish if one is better and also to determine optimum diagnostic values.

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**ABSTRACT FINAL ID:** M-101;

**TITLE:** Epidemiology of acute atraumatic limb impairment in children

**ABSTRACT BODY:**

**Abstract Body: Introduction:** Most children with acute atraumatic limb impairment present with a limp and non-use of the upper limbs is far less common. There is little evidence about acute atraumatic upper limb disorders although there are still the same difficulties with young children and infants who are less able to localise pain or establish a relationship between trauma and their symptoms. Osteomyelitis and septic arthritis often have a non-specific presentation and a high index of suspicion is still required in patients with upper limb impairment. This study aimed to investigate the epidemiology of acute atraumatic limb impairment in children, especially the incidence of orthopaedic infection in the upper limb.

**Setting:** Tertiary paediatric emergency department

**Methods:** A retrospective analysis of children, aged 0-14 years, was performed over a 12 month period from 2009-10, identifying all patients with an acute atraumatic orthopaedic presentation. Patients were included if there was a symptom-free period after any trauma. Those with pre-existing orthopaedic or neurological disease were included if their disease did not contribute to their presentation.

**Results:** 550 episodes of acute atraumatic orthopaedic disease were identified. 316 (57%) patients were male and the median age and Inter-Quartile Range (IQR) was 68 (34-111) months. 434 (79%) patients' symptoms were localised to the lower limb, with 49 (9%) in the upper limb and 21 (4%) in the back. 399 (73%) patients presented with pain. Transient synovitis was the most common diagnosis, affecting 127 children (23%), but 246 (45%) patients had an unknown diagnosis. 28 (5%) children had an orthopaedic infection, with 8 (29%) localised to the upper limb. The median age and IQR for these patients was 20 (12-106) months and 23 (82%) were male.

**Conclusions:** Presentation with acute atraumatic non-use of the upper limb is rare, unlike in the lower limb.

Orthopaedic infection is an important diagnosis to consider in upper limb impairment and must be considered, especially in young, male children.

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**ABSTRACT FINAL ID:** M-102;

**TITLE:** Out-of-hospital pediatric cardiopulmonary arrest in Galicia (Spain)

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Cardiorespiratory arrest (CRA) is a rare event in childhood and its characteristics are not well known all over the world. Our objective was to know the characteristics of pediatric CRA and the immediate results of CPR in Galicia.

Methods: Prospective observational study. Data were prospectively recorded following the Utstein's style guidelines. All children (0-16) who suffered an out-of-hospital CRA in Galicia and were assisted by the Emergency System staff, from June 2002 to February 2005 were included in the study.

Results: 31 cases were analyzed. Time CRA-CPR was lower than 10 minutes in 32.2% and longer than 20 minutes in 29.0%. 22.6% of children received bystander CPR. The first recorded rhythm was asystole in 67.7%. Bag-mask ventilation was used in 80.6% and 87% of patients were intubated. A peripheral venous access was achieved in 67.7% and intraosseous access was used in 16.1% of patients. Statistical analysis indicates a low and non significant relationship between intubation and bystander CPR with survival. We think that an increase in the number of children of the study would show this initial difference much better. After initial CPR, restoration of spontaneous circulation was achieved in 38.7%. In 32.2% CPR was unsuccessful. Out of 21 patients who arrived at hospital 11 were dead before admission (35.5%) and 10 (32.2%) were admitted; 4 died during hospital stay (12.9%) and 6 survived until hospital discharge (19.4%).

Conclusions: Pediatric CRA characteristics and CPR results in Galicia are comparable to references from other communities. Programs to increase bystander CPR, to improve laypeople basic CPR skillfulness and to update life support knowledge of health staff are needed.

Keywords: Cardiorespiratory arrest, cardiopulmonary resuscitation, pediatrics, out-of-hospital.

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**ABSTRACT FINAL ID:** M-103;

**TITLE:** Learning pediatric emergencies with a mobile advanced simulation course. Results of a program for primary care pediatricians in Spain.

**ABSTRACT BODY:**

**Abstract Body:** Purpose of the study: Advanced simulation tends to be focused on hospital and emergency health staff. Primary care pediatricians (PCP) rarely face true emergencies, but they need to be prepared to respond to a wide range of serious events in children. In many cases, access to simulation centres and/or simulation courses is not easy for PCP. This study reports the results of the Spanish Society of Primary Care Pediatrics (SSPCP) project on mobile advanced simulation for PCP.

**Materials and methods:** A multidisciplinary working group was organized to develop the course contents and to put in practice a program of travelling courses in Spain that was fostered, sponsored, and credited by the SSPCP. The Simbaby® system was chosen. At the end of each course, the participants answered an anonymous questionnaire about the main aspects of the course organization, contents, appropriateness to the target population, and opinion about the eventual usefulness of that learned for their professional life. Each item was scored on a scale from 0 to 10. These courses were carried out for one year (from May 2008 to May 2009), and analysed.

**Results:** The course program included an introduction to the simulation system and six scenario-debriefing sessions, with a total duration of 8 hours (in one day or two half-days). The main learning objective was to be able to detect the potentially seriously ill children, and to initiate emergency treatment and stabilization with the resources available at a primary care facility. Twelve courses were carried out in 12 cities. Total number of participants was 192 and 178 (92.7%) completed the questionnaire. Mean (SD) score of the main items were: general organization 9.2(0.5), objectives related to personal expectations 9.3(0.4), course useful for work demands 9.4(0.4), scenarios resembling reality 9.1(0.4), good instructor-participant relationship 9.6(0.2).

**Conclusion:** A mobile pediatric emergencies advanced simulation course is feasible. Our course has been very well accepted by PCP and our results indicate that simulation programs may be very useful.

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**ABSTRACT FINAL ID:** M-104;

**TITLE:** One year in the life of a mobile Simbaby® in emergency courses

**ABSTRACT BODY:**

**Abstract Body:** Background: Human patient simulators tend to be located in few simulation centres that are not easily accessible for many professionals. Although pediatric models are relatively mobile, there are no reports about the feasibility of mobile teaching activities, or the durability of the simulation system components.

Objective: To assess the function and durability of an advanced pediatric simulation system used in mobile courses and to audit the impact of eventual software and hardware failures on the teaching activity.

Material and methods: During one year, 21 pediatric advanced simulation courses (8 hours in one day or two half-days) were carried out in 18 different cities in Spain. The simulation system used was Simbaby®. In each course, the teaching material and the simulation system was assembled and disassembled by the course instructors. The number of main procedures done by the participants and the events with the simulation system that occurred during the courses were prospectively recorded.

Results: Total number of participants in courses was 357; they performed 245 scenarios, which included 156 defibrillation attempts, 201 intraosseous line attempts, 320 intravenous access procedures, 123 intubations, and 135 oropharyngeal airways. During the study period, the right leg was replaced one time and the venous system of the right arm two times. At the end of the year, the following elements needed replacement: face and thorax-abdomen skin, tongue, right arm, and right leg. The system's computer has some failures that provoked the cancellation of scenarios. The software has some problems of compatibility between elements that demanded extra time to prepare the system before the course. The video recording system failed in 7% scenarios that were debriefed without video feedback.

Conclusions: Our study shows that the Simbaby® system can endure one year of mobile activity, but the software is not completely reliable. Also, it could be helpful feedback for designers and producers in order to improve the current model and develop new models that are more effective, durable and adapted to the training needs of mobile programs for pediatrics.

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**ABSTRACT FINAL ID:** M-105;

**TITLE:** Pediatric simulation as an investigational tool for assessment of new airway management devices in emergencies

**ABSTRACT BODY:**

**Abstract Body:** Purpose of the study: Advanced simulation has been developed mainly as an educational and training tool, both for individuals and teams. However, human patient simulators can also be used as models for testing and evaluating new devices and/or procedures before they are assessed in real patients. Recently, a number of direct and indirect video laryngoscopes have been developed, but the role of each device is not clear due to the absence of clinical experiences, limited by ethical aspects, and by the few number of children that need tracheal intubation. We present our preliminary experience with a pediatric advanced simulator in the assessment of a new video laryngoscope.

**Material and methods:** We planned and carried out a randomized study to compare the ability of pediatric residents to perform a tracheal intubation in different airway scenarios, using the standard Macintosh laryngoscope and a new indirect video laryngoscope (Glidescope®). Four airway scenarios were prepared: one considered “easy” airway (normal airway of the Simbaby® manikin) and 3 “difficult airways” (tongue edema, tongue edema + oropharyngeal edema and cervical collar with normal airway). The participants’ performance was checked directly by two investigators, and also by means of the Simbaby® video recording function.

**Results:** Thirteen subjects participated in the study that has been carried out in two 4 hour sessions. The main study incidence was that despite the use of a zenith camera, the visualization and recording of the video laryngoscope image was suboptimal. In 3 scenarios the manikin’s mandible was dislodged and needed repositioning. At the end of the study the manikin had a small tear in the right corner of the mouth. Frequent lubricant administration was needed in order to permit the tube to slide through the manikin’s airway.

**Conclusion:** Advanced simulation is a useful investigational tool to assess the role of new airway management devices before its application in real patients. Therefore, simulation may contribute to preserve patient’s rights and promote patient safety.

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**ABSTRACT FINAL ID:** M-106;

**TITLE:** PEDIATRIC RAMSEY HUNT SYNDROME TYPE 2

**ABSTRACT BODY:**

**Abstract Body:** Ramsay-Hunt Syndrome (RHS) is a rare affection characterized by peripheral facial paralysis (PFP), skin eruption in the auricular canal and cochleovestibular symptoms. It is produced by varicella-zoster virus (VZV) reactivation at the geniculate ganglia.

**Case:** We report a patient 14 years-old with RHS. She complained her mouth was shifting to the right when she was talking. She had never complained ear pain. Her left eye lid was not closed exactly on physical examination. There was no involvement of other cranial nerves. There were vesicular lesions on the left external ear way and auricula. She was diagnosed with PFP and RHS Type 2. She received treatment with acyclovir. She had complete resolution of the PFP.

**Conclusion:** PFP is uncommon in the pediatric population. Examination of skin and external ear canal is important for early diagnosis of RHS. RHS is an infrequent disease in the pediatric population and it should be suspected in children with PFP, erythema, vesicles and/or auricular pain. Early treatment with acyclovir therapy could improve the recovery rate of facial nerve palsy.

**Key words:** Ramsay Hunt syndrome, peripheral facial paralysis, otic herpes zoster, varicella zoster.

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**ABSTRACT FINAL ID:** M-107;

**TITLE:** Does Subspecialty Training Affect the Evaluation And Management Of Febrile Infants?

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** It is unclear how physicians fellowship-trained in pediatric emergency medicine compare with other physicians in the evaluation and management of children. The evaluation of young infants between 28 and 60 days of age with a fever is controversial and recommendations vary. We sought to determine if there is a difference between fellowship-trained pediatric emergency specialists (PEM), general emergency physicians (EM), and general pediatricians (P) in their evaluation and management of these infants.

**METHODS:** Design: Retrospective cohort. Setting: Four designated pediatric emergency departments in NY and NJ. Protocol: ED records of consecutive patients aged 28 to 60 days that presented to the ED over a 5 year period with fever based on ICD9 code were reviewed. The attending physicians caring for the patients were categorized based on their level of training into the following categories: PEM, EM, P, or "other." Only patients evaluated by PEM, EM, or P were included in the study. CPT codes assigned by billing specialists were used to determine if patients got a lumbar puncture (LP) and charts were reviewed to determine if patients were admitted to the hospital. LP and admission rates were determined and differences and 95% confidence intervals (CI) were calculated.

**RESULTS:** Of 533 infants between 28 days and 2 months of age that presented to the ED with fever, 161 were seen by EM, 247 were seen by PEM, 109 were seen by P, and 16 were seen by "other." LP rates were 91% for EM, 84% for PEM, and 72% for P. The difference in LP rate between EM and PEM was 7% (CI: 0, 13); between PEM and P was 11% (CI: 2, 21); and between EM and P was 18% (CI: 8, 28). Admission rates were 90% for EM, 88% for PEM, and 86% for P. The difference in admission rates between EM and PEM was 2% (CI: -4, 8), between PEM and P was 2% (CI: -6, 9), and between EM and P was 4% (CI: -4, 12).

**CONCLUSION:** EM appear more likely than PEM or P to perform LPs on febrile infants, although admission rates are similar. The reason for this difference is unclear and requires additional studies.

**AUTHORS/INSTITUTIONS:** B. Walsh, E. Gualandi, D.P. Calello, , Morristown Memorial Hospital, Morristown, NJ;

**ABSTRACT FINAL ID:** M-108;

**TITLE:** Comparison of success and pain levels of supination-flexion and hyperpronation maneuvers in childhood nursemaid's elbow cases

**ABSTRACT BODY:**

**Abstract Body:** Nursemaid's elbow, also called subluxation of radius head, is a common diagnosis in children who admit to emergency medicine with a chief complaint of avoiding arm movement. Although supination and forearm flexion is preferred to hyperpronation for its reduction traditionally, there is no clear evidence whether it is superior. The aim of this randomized clinical study was the comparison of reduction techniques applied in childhood nursemaid's elbow cases in terms of efficacy and pain. In total, 0-6 years old 150 cases (51 males [34%] and 99 females [66%]) who admitted to Emergency Medicine Clinic between the dates of October 1, 2009 and October 1, 2010 were included in our study. Cases were selected in a randomized manner and reduction was performed either by hyperpronation (HP) technique (in odd days of the month) or supination-flexion (SF) technique (in even days of the month). Reduction was performed in 82 cases (54.7%) by SF technique and in 68 cases (45.3%) by HP technique. In 121 cases (80.7%) a single intervention, in 2 cases (1.3%) two interventions, and in 27 cases (18%) three interventions were performed for reduction. In those 27 cases (18%) alternative reduction technique was used at the third intervention. Pain levels of cases before, during and after reduction procedure were evaluated by using Modified Children's Hospital Eastern Ontario Pain Scale (mCHEOPS). When all interventions were taken into account, SF technique was performed in 59 cases (39.3%) and HP technique was performed in 91 cases (60.7%) ( $p=0,00$ ). Therefore, it is found that HP technique is clearly superior to SF technique. However, both techniques were comparable in terms of pain. In conclusion, we believe that SF maneuver, which is still most commonly suggested for the reduction in Nursemaid's elbow cases in medical books and literature, should be replaced by HP maneuver.

**Key words:** Nursemaid, Elbow, Reduction, Hyperpronation, Supination-Flexion

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**ABSTRACT FINAL ID:** M-109;

**TITLE:** Lack of Seasonal Association Between Pediatric Intussusception and Gastrointestinal Disease

**ABSTRACT BODY:**

**Abstract Body:** Intussusception is a pervasive disease with significant morbidity if left untreated. It has long been speculated that intussusception incidence may correlate with gastrointestinal illness, specifically gastroenteritis, which has a seasonal peak occurring in March/April. Study Objective: To determine if intussusception has a seasonal variation that correlates with pediatric gastrointestinal illness. Methods: Design: A multi-center retrospective cohort study. Setting: 29 urban, suburban, and rural emergency departments (ED) in the New York/New Jersey area. Participants: Consecutive patients with the final ICD9 diagnosis of intussusception from Apr. 1999 to Nov. 2010. We "a priori" subdivided patients into: < 5 years (yrs), < 18 yrs and > 18 yrs for analysis. Statistics: Chi-square and Mann-Whitney for analysis with a significant P-value < 0.05. Results: A total of 8,340,594 patients were seen during the study period. A total of 418 (.005%) patients were diagnosed with intussusception. Patients < 5 yrs comprised 51% (N= 214), < 18 yrs 63% (N=265) and those 18 yrs or older 37% (N=153). Overall median age was 4.6 yrs (IQR 1.4-34.7yrs). Female comprised 43% (N=181) of patients. 73% (N=305) were admitted, 17% (N=69) discharged and 10% (N=44) transferred. The most common month for ED visits was Aug., comprising 12% of all cases and the least common was Oct. and Feb. each comprising 5.3% of visits. Mar. and Apr. (peak gastrointestinal season) comprised 6 % of total cases per month, compared with an average monthly rate of 8% for the remaining months (p=0.14). Over the last twelve years the percent of patients with this disease is: 1999 (0.0018%), 2000 (0.00167%), 2001 (0.00243%), 2002 (0.00442%), 2003 (0.00358%), 2004 (0.00487%), 2005 (0.0057), 2006 (0.0079), 2007 (0.0080%), 2008 (0.0090%), 2009 (0.0089%), 2010 (0.0097%) (p=<0.001). The median age from 1999-2004 was 3.6 yrs (IQR 1.6-22yrs) and was 5.5 yrs (IQR 1.6-36 yrs) from 2005-2010 (p=0.12) Conclusion: The percent visits for intussusception is increasing in our ED population and did not mirror the Mar/Apr. peaks for gastroenteritis.

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**ABSTRACT FINAL ID:** M-11;

**TITLE:** Abdominal Aortic Aneurysm Presenting as Constipation

**ABSTRACT BODY:**

**Abstract Body:** 85 year male presented with intermittent diffuse abdominal pain and constipation for a week; worse at night; no nausea, vomiting or diarrhea; normal bowel movement five days prior.

Past Medical History: CABG

Medications: Paxil, HCTZ, lovenox, metoprolol, amlodipine, ASA, naproxen; no allergies

Family History: Brother-colon cancer.

Social History: No tobacco, alcohol, drugs

Physical Exam: Well nourished, well developed male; blood pressure 180/89, pulse 72, respirations 20; afebrile; oxygen saturation 97%.

HEENT-membranes moist, anicteric. Lungs-clear Heart- regular. Abdomen- mildly distended, but soft. Normal active bowel sounds. Mild epigastric tenderness; no rebound or guarding. Rectal- guaiac negative.

Pertinent Labs: HGB 8.7, HCT 25; BUN 45, creatinine 1.9

Imaging: Abdominal plain film: "Abdominal aortic calcification identified. Bowel gas pattern unremarkable." ED attending identified a large abdominal aortic aneurysm (AAA). Bedside ultrasound confirmed (7.5 cm).

Discussion: Always review x-rays in a thorough and systematic manner. Even when the diagnosis appears obvious, there may be more. Anyone can be distracted by a dramatic finding like this stool filled colon and fail to notice a more subtle but more important finding like this AAA. Usually < 4 cm diameters, AAAs are present in 8% of those over 60 years of age. White race, male sex, family history, smoking, atherosclerosis, CAD and claudication are risk factors. Inflammation plays a role in pathogenesis. It is uncommon for AAAs smaller than 5 cm to rupture, so vascular surgeons accept this size as the criteria for elective repair. The estimated annual rupture risk with a diameter >7.0 cm. is 40%. Risk is also related to rate of expansion, female sex, smoking, uncontrolled hypertension and wall stress. AAAs are usually asymptomatic until rupture, and are often diagnosed during an evaluation for abdominal pain. Often pain is due to recent expansion of the aneurysm, increasing the risk for rupture. Aneurysmal tenderness is an ominous sign. Management includes prompt referral to Vascular Surgery, control of hypertension with beta blockers and use of statins.

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**ABSTRACT FINAL ID:** M-110;

**TITLE:** Can established methods predict weight in the paediatric population?

**ABSTRACT BODY:**

**Abstract Body:** Background: In critically ill children who present to the Emergency Department it is often unrealistic to weigh them prior to commencing treatment. Drugs of resuscitation, including those with a narrow therapeutic index, are commonly given based on previously described formulae. The two most commonly used formulae were studied namely  $\text{Weight} = (\text{Age}+4) \times 2$  and  $\text{Weight} = (\text{Age} \times 3) + 7$

Aim: To establish whether currently used formulae for estimating weight are accurate to within 20% of the actual weight in our population.

Methods: 437 well children between the ages of 3-12 years of age were studied. Background information collated about each child included history of prematurity, presence of medical conditions and socioeconomic status. Each child had several measurements done including weight in kilograms. Predicted weight was calculated for each child using the above formulae and the percentage of children whose predicted weight was within 20% of their actual weight was established.

Results: The most accurate formula studied was  $\text{Weight} = (\text{Age} \times 3) + 7$ . This gave a percentage agreement of 76.9% (95% CI 72.6-80.8) The more commonly used formula,  $\text{Weight} = (\text{Age}+4) \times 2$  gave a percentage agreement of just 40.9% (95% CI 36.3 – 45.7)

Conclusion: This study demonstrates that the formula,  $\text{Weight} = (\text{Age} \times 3) + 7$  gives a more accurate estimation of weight than its more popular counterpart in our population.

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**ABSTRACT FINAL ID:** M-111;

**TITLE:** Can shoe size predict weight more accurately than currently used formulae in the paediatric population?

**ABSTRACT BODY:**

**Abstract Body:** Background: In critically ill children who present to the Emergency Department it is not often feasible to weigh them prior to commencing treatment. Drugs of resuscitation, including those with a narrow therapeutic index, are commonly given based on previously described formulae. The two most commonly used formulae are  $\text{Weight} = (\text{Age}+4) \times 2$  and  $\text{Weight} = (\text{Age} \times 3) + 7$ . It has been suggested in the available literature that a formula based on shoe size, or foot length, ( $\text{Weight} = 6.8 \times (\text{shoe size} \times 0.102)$ ) may be a novel and useful method of predicting weight in critically unwell children.

**Aim:** To establish whether a suggested formula for predicting weight based on European shoe size is able to predict weight more accurately than the two more commonly advocated paediatric resuscitation formulae.

**Methods:** 437 well children between the ages of 3-12 years of age were studied. Background information was collated about each child included history of prematurity, presence of medical conditions and socioeconomic status. Each child had several measurements taken including weight in kilograms and foot length. European shoe size was also documented. Predicted weight was calculated for each child using the above formulae and the percentage of children whose predicted weight was within 20% of their actual weight was established.

**Results :** The formula based on European shoe size ( $\text{Weight} = 6.8 \times (\text{shoe size} \times 0.102)$ ) gave a percentage agreement of 42.3% (95% CI 37.7-47.1) The commonly used formula,  $\text{Weight} = (\text{Age}+4) \times 2$  gave a percentage agreement of just 40.9% ( 95% CI 36.3 – 45.7) while the formula  $\text{Weight} = (\text{Age} \times 3) + 7$  gave a percentage agreement of 76.9% ( 95% CI 72.6-80.8)

**Conclusion:** This study cannot support the adoption of shoe size as a basis for calculating weights in our population.

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**ABSTRACT FINAL ID:** M-112;

**TITLE:** Paediatric Emergency Triage - A Retrospective Audit of Paediatric Triage Observations in a busy Emergency Department.

**ABSTRACT BODY:**

**Abstract Body:** Background- Paediatric presenting complaints are a common diagnostic challenge to clinicians of all experiential levels. Paediatric caseload reaches 20-30% of annual attendance rates. The diagnostic challenge is differentiating a self limiting viral illness from a life threatening systemic syndrome. Introduction- The Yale Observational Scale (YOS) and the Young Infant Observational Scale (YIOS) are two scales that form the basis for the National Institute of Excellence (NICE-UK) 2007 guideline for the assessment of febrile children under 5 years of age. Subjective scoring systems alone have low specificity for serious disease, so objective physiological data collection and triage is a more robust method for risk stratification. Objectives- 1. To monitor the frequency of physiological data collection in children under 5 years old. 2. To measure whether the data collection was timely (<20mins), in order to infer expedient risk stratification. Methods- A retrospective review of 50 consecutive cases in December 2010 was undertaken in our emergency department. Results- Respiratory rate (RR), Heart Rate (HR), O2 saturations (sats) and Temperature (Temp) were the most recorded physiological data- 70%, 78%, 74%, 78%. Blood Pressure (18%) and GCS (40%) were the least recorded. In fact, BP and GCS were not recorded at all in 44% and 32% of cases. RR was not recorded in 18% of cases. Parameters varied from 14-38% with regard missing the 20min cut off. Conclusions- The audit demonstrated significant areas for improvement, with regard comprehensive and timely paediatric triage. Though in the majority of cases physiological data was being collected, it was often incomplete or delayed. The incidence of parameters not being recorded at all (6-44% HR-BP) is also of considerable concern. Standards will improve if all departments audit their paediatric triage practice and endeavour to enact change in triage culture and practise. Through nurse education and monitoring exercises the aim of 100% triage recordings should be achievable and requisite.

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**ABSTRACT FINAL ID:** M-113;

**TITLE:** Bronchiolitis management in primary care in Ireland

**ABSTRACT BODY:**

**Abstract Body:** Introduction

Bronchiolitis is a self-limiting illness of childhood characterised by cough, rhinorrhoea and wheeze. It usually occurs in children below the age of 2 years but predominates in the 3 to 6 month age group. It is a viral illness and as such does not benefit from the use of antibiotics but also it has been shown that inhalers and steroids offer no significant benefits either.

Methods

We reviewed the notes of all patients seen in the emergency department in the month of January 2010 with a discharge diagnosis of bronchiolitis. Inclusion criteria were patients under the age of 2 years with a diagnosis of bronchiolitis not requiring admission and seen by a general practitioner at some point in the proceeding week prior to our review. Exclusion criteria were admission for the illness, a prodrome lasting longer than 1 week or alternative reason documented in notes for antibiotics (eg otitis media).

Results

In total 223 patients were identified with a discharge diagnosis of bronchiolitis. Of these 32 were admitted, 104 had no documented note stating they had seen the GP in the proceeding week and 8 either had an alternate diagnosis accounting for the antibiotic use or had a clinical course lasting longer than one week. In total 77 cases seen by GPs with a diagnosis of bronchiolitis were identified.

Overall 40% of all patients with a clinical diagnosis of bronchiolitis were managed with antibiotics with 51% receiving medical intervention (including inhalers, steroids and salbutamol syrup)

There was no statistical difference between presenting symptoms (cough with rhinorrhoea wheeze or both) in terms of likelihood of being prescribed any treatment. There was however a statistically significant difference in the likelihood of patients being treated on basis of age with those with a median age of 5 months less likely to get antibiotics than older children with a median age of 10 months ( $p < 0.001$ )

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**ABSTRACT FINAL ID:** M-114;

**TITLE:** Comparison of Results of Rectal and Tympanic Thermometry in Febrile Children

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Fever is one of the most common presenting complaints of children in the emergency department (ED). Assessment for presence and degree of fever is critical to appropriate management of these patients. This study compared results of tympanic thermometry (TT) with standard rectal thermometry (RT) in pediatric ED patients in ability to accurately detect fever. We hypothesize that TT measurement will differ from RT measurement in the same child.

METHODS: By retrospective review febrile children treated consecutively in an urban medical center over an 18 month period were evaluated. In this center patients undergo triage with TT (Genius 2, Tyco Healthcare, Mansfield, MA, USA) and subsequently in the pediatric ED may undergo measurement by TT or RT (Turbo Temp Thermometer, Alaris Medical Systems, San Diego, CA, USA). All patients treated in this time period had data extracted from the electronic medical record and patients for which both TT and RT values were available and no exclusion criteria were presented were included (n=74). The TT/RT pairs were compared by paired t-test. Fever was defined as RT equal or greater than 38°C (100.4°F). Exclusion criteria included use of antipyretics prior to the second (rectal) temperature assessment, more than 30 minute delay between TT and RT assessment, or use of active or passive cooling measures such as tepid bathing prior to RT. Statistical calculations were performed using Stata 10 IC (Statacorp, College Station, Tx) with alpha= 0.05 and power= 0.8.

RESULTS: A statistically significant difference between TT and RT was noted (p<0.000). Summary statistics are included in the attached graph. CONCLUSION: In children <7 years TT fails to detect fever to a statistically and clinically significant degree. In this group, children with fever detected by RT typically have a TT measurement <38°C, incorrectly indicating they are afebrile. The average difference in TAT and RT was 0.98°C which is clinically significant. Clinicians should obtain RT rather than rely on TT in situations for which accurate detection of febrile temperature is important.

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**ABSTRACT FINAL ID:** M-115;

**TITLE:** Prevalence of headache in school-children and impact of socioeconomic factors. HBSC study, Lithuania

**ABSTRACT BODY:**

**Abstract Body:** Background. This study is the first survey of headache in schoolchildren in Lithuania. Numbers about headache prevalence do not exist for Eastern Europe.

Objective. To determine the prevalence rate of headache in 11-15 age children and the role of possible related SES-factors. This study is a part of the Cross-National Survey on Health Behavior in School Age Children – WHO Collaborative Study (HBSC).

Methods. The standardized HBSC(Lithuanian version) questionnaire was administered to 5632 schoolchildren in 2005-2006. Totaly 2904 (51.6%) boys and 2728 (48.4%) girls were enrolled. The average age – 13.0±0.1yr. The response rate - 86%. The evaluation of an impact of SES-factors was based on this items: parent's education and occupation, family income and structure. Lithuania belongs to upper- middle-income economies country.

Results. The overall prevalence of frequent headache (at least once/week) was 24.2% and 42.7% (at least once/month) ( $\chi^2=131$ ;df=8;p<0,001). Boys are less at risk than girls ( $\chi^2=206$ ;df=4; p<0,001) and the prevalence increases with age ( $\chi^2=56.8$ ;df=2;p<0,001). The vast majority of respondents, suffering from headache, their subjective health assessing as good ( $\chi^2=72,9$ ;df=1;p<0,001). Family income had a strong association with adolescent's headaches and significantly more prevalent among girls from low income families ( $\chi^2=13,4$ ;df=2;p=0,01). Adolescents who lived in two-parent families and had good relationships with their parents experienced less headache cases ( $\chi^2=19.5$ ;df=3;p<0,001).

Conclusion. School age, especially in adolescence, family richness and structure had a great significance on the prevalence of adolescent's headache and should be considered when thinking about treatment.

Key words: school-age children, headache, socio-economic situation.

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**ABSTRACT FINAL ID:** M-116;

**TITLE:** Does the ESI at Triage Reflect the Diagnosis at Discharge from the Emergency Department?

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** In the Emergency Department (ED), the triage at admission is essential for our everyday practice. Usually, it is based on the Emergency Severity Index (ESI) calculated on admission, but some departments have developed their own algorithms according to their experience and/or their type of organization. The aim of this work is to evaluate the quality of the triage at admission, and assess if there is any correlation with the diagnosis at discharge. **METHODS:** This retrospective study was conducted in our Emergency Department from January 1 to December 31, 2009 and based on the reason for admission and the ESI, in the data entered in the computerized charts. Variables recorded included: Age, sex, number of patients in the 24h shift, and the ESI of the patients admitted in the High Acuity (HAZ) and the Low Acuity Zone (LAZ) of the ED. Groups were categorized according to the daily number of admission: Low Flow if less than 50 patients a day, Normal Flow (50 to 70 patients per day), and Important Flow if more than 70 admission. **RESULTS:** 5500 patients were included in our study, with a mean age of 48 (+/- 13 years), and a sex/ratio of 2M/3F. (Table 1). **CONCLUSION:** The excessive load in the ED is responsible for some inconsistency in the triage. The ESI 4 & 5 patients were triaged by excess to the HAZ, while ESI 2 & 3 were sorted and oriented by default to the LAZ of the ED. The quality of triage regresses when utmost needed. The stress and pressure at the admission, the complexity of certain scales used for the triage, but also the atypical presentation of some clinical pictures, mainly explain this lack of accuracy. Simplified algorithm for triage, associated with a Fastrack pathway may improve the quality of this triage, and also may help decongest the ED.

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**ABSTRACT FINAL ID:** M-117;

**TITLE:** Factors Affecting Category 1 Critical Patients Length-Of-Stay in Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Patients length-of-stay (LOS) in an emergency department (ED) is the time range from first arrival of the patient to the ED to outcome (discharge, transfer to another clinic/hospital, death, refuse treatment). Critical patients, 8-25% of emergency crowding - is needed to spend time for resuscitation. Longer LOS increases crowding and decreases satisfaction. We aimed to determine which factors affect LOS of category 1 emergency patients. **METHODS:** In a university ED, during 1st May – 31st July 2010, adult critical patients (>18 yo) were included. We noted blood pressure, heart rate, respiratory rate, temperature, pulse oxymeter, past medical history, complaints, imaging studies (x-ray, CT, MRI, echocardiography), procedures (intubation, central venous catheterisation, pericardiocentesis, bedside ultrasonography, suturing etc.), which (emergency/central) lab was used, how many consultations were needed, how many staff (doctor, nurse, intern doctor, nurse's aide) worked and outcome. **RESULTS:** 1192 patients, mean of age was  $57.4 \pm 18.2$ . 57% of patient were male. Mean LOS was  $247.6 \pm 172.7$  minutes. The factors increasing LOS ( $p < 0.05$ ):  $\geq 65$  yo,  $\geq 2$  consultations,  $\geq 18$  per min respiratory rate,  $> 37.2$  and  $< 36.5$  degree of Celcius, chronic renal failure on history, imagings (x-ray, CT, echocardiography, endoscopy, ultrasonography), and discharge. Multiple trauma patients had longer LOS than patients associated cardiac and neurologic complaints ( $p < 0.05$ ). According to complaint (Table 1) and diagnosis (Table 2) about LOS were presented. Patients hospitalized into critical care units stayed less time in the ED. Patients stayed in the ED longer times when monitor and ventilator were looked for the hospitalization. **CONCLUSION:** Local hospital and departmental factors can affect LOS. Emergency physicians must know what source they have.

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**ABSTRACT FINAL ID:** M-118;

**TITLE:** Can ED Crowding be a Performance Evaluation Parameter for Health System?

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Emergency department (ED) is a unique environment in which highly specialized care is delivered to the acutely ill and injured and safety net care is provided to vulnerable populations. Any phenomenon that causes ED crowding threatens both of these missions. Aim - Monitoring the effects of the new assessment of health system on ED crowding in Rome. **METHODS:** Prospective multicenter study, to which 7 Roman hospitals (university and community), situated in 4 areas of Roman health system, participated. The new health assessment, started at the end of 2010, tries to rationalize cost and resources by creating a Hub/spoke system for each area, cutting acute beds, improving home medicine, cutting new MD employment. All hospitals measured ED crowding with NEDOCS score for 6 months in 2011, calculated 5 times a day. For each hospital and area the data of NEDOCS, ED pt rate, pts by ambulance rate and flow, hospital admission; LWBS%; time to medical visit, time of boarding were compared. **RESULTS:** During the first months ED crowding increased with similar effect on time to visit and time to boarding. EMS ambulance flow demonstrated poor communication with hospitals about ED crowding. Multiarea EDs seem to have a better resilience. **CONCLUSION:** ED Crowding is a multifactorial phenomenon and can be of help in monitoring efficiency of any changes in health organization.

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**ABSTRACT FINAL ID:** M-119;

**TITLE:** Can “Multiareas ED” be a Suitable Strategy to Manage Overcrowding?

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** EDs have many important commitments: provide immediate access and stabilization for those patients who have an urgent medical condition; manage with adequate diagnostic and therapeutic assessment the huge request of health by all patients. Overcrowding diminishes the capability of EDs to manage these requests effectively. In the second half of 2009 we changed our ED structure in a “Multiareas Dept.” in order to improve the efficiency of our ED and to contrast the negative effects of overcrowding. Aim-Verify multiareas ED is a suitable strategy to manage overcrowding and reduce risk in ED. **METHODS:** Sandro Pertini is a community hospital in Rome (300 beds -85.000 ED pts/yrs; reference pop. 600.000 inh). In 2009 we reorganized our ED in different areas: Admission/triage Area; Emergency or high intensity Area (red/yellow codes); Medium-low intensity Area (green/white codes internal- surgical-orthopedic track); Fast Track Area (gynecological and pediatric); Diagnostic Assessment Area (complete diagnostic/therapeutic assessment 6-12 h); Short Observation Unit (12-36 h); emergency medicine dept. (1,5-4 days). In this study we compared activity data (N. pts/yrs; N. and % triage codes; N./% ambulance; Age people; n. beds for acute in/out hospital) and performance data (time to visit for yellow/green codes; Time LOS; % hospital admissions; time to admissions; % transferred to other facilities; % LWBS; % LWCA Left Without Completed Assessment; % outpatients dept adms; overcrowding level by NEDOCS) of the first half year of 2009-2010-2011. **RESULTS:** Initial data highlight a positive trend in pts/yrs (+5% /yrs) and in case mix (+1% red;+ 3% yellow), a negative trend in beds availability (-0,3 bed/1000inh); stable average time to visit for yellow (16 min) and for green (58 min), while % LWBS and % LWCA are decreasing; % hospital admissions decreased, but % SOU admissions improved as well as %outpatients dept adms. **CONCLUSIONS:** Multiareas ED make easier to reach high flexibility in organization and maintain efficiency also in case of constant overcrowding. Last but not least, patients perceived more efficiency and less confusion.

**AUTHORS/INSTITUTIONS:** A. Revello, A. Simone, S. Zyada, F.R. Pugliese, Emergency , Sandro Pertini Hospital, Rome, ITALY;

**ABSTRACT FINAL ID:** M-12;

**TITLE:** Mean temperature and humidity strongly influence the number of visits for renal colic in a large urban Emergency Department: results of a nine years survey.

**ABSTRACT BODY:**

**Abstract Body:** The pathogenesis of renal stones is an intricate process, and varies widely depending on the composition of stones. There is also a marked geographic variability, strongly attributable to the Mean Annual Temperature (MAT) and, on a lesser extent, on the seasons. Previous investigations have reported peaks in Emergency Department (ED) visits for renal colic during the summer. As such, the aim of the present investigation is to assess the influence of day-by-day climate changes on the number of visits due to renal colic in our ED (city of Parma, located in the Po river valley, with a temperate continental climate). A total of 10803 colic episodes were retrieved from our database during a period of 3288 days (from January 1st 2002 to December 31st 2010). Over the same period 725712 patients were admitted to our ED, so that the visits due to renal colic represent 1.48% of the total. The linear regression analysis fitting the mean number of colics per day and the mean daily temperature displays a very high and significant positive correlation ( $R = 0.934$ ;  $p < 0.0001$ ). A strongly significant negative correlation was instead found fitting the mean number of colics per day and the mean daily humidity ( $R = -0.820$ ;  $p < 0.0001$ ). We have also demonstrated that the age represents a critical factor, patients aged 50-60 years showing the maximum increase of colic incidence per temperature range (fig. 1). Temperature increase brings a minimum risk for patients younger than 40 years, whereas the risk is significantly greater for patients older than 50 years. As such, in order to prevent renal colics, our data suggest the need for hydration during hot and dry periods, with particular emphasis for patients older than 50 years.

**AUTHORS/INSTITUTIONS:** G. Cervellin, I. Comelli, D. Comelli, Emergency, University Hospital of Parma, Parma, ITALY;

**ABSTRACT FINAL ID:** M-120;

**TITLE:** The Speed: How Soon is Enough for Rapid Disease Management

**ABSTRACT BODY:**

**Abstract Body:** Rapid and precise disease management is the ultimate goal of emergency departments in any part of the world. Providing diagnostics and treatments in a timely manner, however, is the utmost challenge that we face today with a growing population. NY Presbyterian Weill Cornell Emergency Department has launched a massive system innovation over the past 5 years in order to improve the timely management patients' illness, regardless of ED overcrowding. The actions involve a new ED design, allocation of ED staff members, renovation of the IT system, rapid lab turn around, instant registration, dedicated transportation and clinicians working for the ED from other departments. The benefits as well as challenges and limitations are discussed for each intervention. The future approach for the rapid disease management and creation of newer system is conceptualized. Let's talk about utopia, the world where every patient will be seen with no wait time.

**AUTHORS/INSTITUTIONS:** K. Yamauchi, N. Flomenbaum, , New York Presbyterian Hospital, New York City, NY; N. Flomenbaum, , Weill Cornell Medical College, New York City, NY;

**ABSTRACT FINAL ID:** M-121;

**TITLE:** Effect of a Walk-in-centre on Emergency Department Crowding

**ABSTRACT BODY:**

**Abstract Body:** Background: Walk-in-centres have been proposed as a means of reducing ED workload. The first Australian hospital-based nurse-led walk-in-centre was opened on a hospital campus and promoted with an announced aim of relieving ED crowding.

Objectives: To describe the changes in ED workload at 6 months after the May 2010 opening of a walk-in-centre on a tertiary hospital campus.

Methods: Scheduled 182 day prospective descriptive cohort study with primary controls of the preceding 182 days and the same 182 days of the previous year in a mixed tertiary ED and secondary controls of the same three periods in the other ED in the same city. Daily means of ED presentations, ward admissions, and ED occupancy (patient-care time) by those presentations were calculated from the ED information system. The null hypothesis was that the walk-in-centre was not associated with any change in ED workload.

Results: There was a highly significant ( $P < 0.0001$ ) increase in daily presentations, admissions and occupancy in the tertiary ED compared to control periods as shown in the table. At the same time presentations to the urban ED decreased significantly (3.9% or 5 presentations daily) on the previous year and increased marginally (1.0%) on the previous 6 months. Subsequent analysis showed both the seasonal and annual increase in the tertiary ED to be significantly greater than the average of the previous 6 years and the decrease in the urban hospital to be due to a change in counting of influenza clinic patients.

Conclusion: Opening of the walk-in centre was directly associated with a clinically and statistically significant increase in tertiary ED workload of 6% and a greater increase in crowding over the first 6 months. It is possible that some of the increase represented patients who would previously have chosen to present at other ED in the city, but the decrease there was not sufficient to explain all the tertiary increase. The centre did not achieve its stated aim.

**AUTHORS/INSTITUTIONS:** D.B. Richardson, Emergency Department, Australian National University, Garran, Australian Capital Territory, AUSTRALIA;

**ABSTRACT FINAL ID:** M-122;

**TITLE:** Derivation Study: Early Identification of days with high risk of patients Leaving Without Being Seen

**ABSTRACT BODY:**

**Abstract Body:** Abstract: Background: The proportion of patients who do not wait to be seen (DNW) is a quality measure but varies during the day, usually being worst in evenings.

Objectives: To identify practical predictors of daily DNW which are valid early in the day.

Methods: Retrospective descriptive analysis of 364 consecutive 24 hour periods beginning at 05:00am (57642 presentations) from a mixed tertiary ED. The dependent variable was daily DNW. Potential predictors calculated hourly were the number of patients waiting, being treated, arriving, awaiting inpatient beds, in observation ward, in acute area, and combinations. Multivariate analysis of daily means seeking to understand risk factors for DNW was followed by multivariate analysis of 11:00am data. Days were classified as HIGH or LOW either side of 10% and individual potential predictors were tested using ROC curves.

Results: All potential predictors were positively correlated with DNW. Multivariate analysis showed daily DNW was most strongly associated with mean number waiting ( $r=0.77$ ) and then weakly with daily boarders. At 11:00am it was most strongly associated with mean total occupancy excluding observation unit. ROC analysis found that a threshold of 33 of mean occupancy at 11:00 was the best single predictor. Retrospective testing further showed that days when this threshold was exceeded at any time up to 11:00am were even more likely to have HIGH DNW (64% of 187 vs 38% of 176,  $P<10E6$ ).

Conclusion: Total occupancy is a simple and plausible predictor of daily DNW which is potentially useful because it is amenable to intervention by ward admission and expedited ED discharge. If prospectively validated this measure has potential to identify days at high risk of DNW before a significant number of patients have left, and thus allow intervention.

**AUTHORS/INSTITUTIONS:** D.B. Richardson, Emergency Department, Australian National University, Garran, Australian Capital Territory, AUSTRALIA;

**ABSTRACT FINAL ID:** M-123;

**TITLE:** Pod System Implementation Results in Significant Improvement of Emergency Department Flow

**ABSTRACT BODY:**

**Abstract Body:** Objective:

Determine impact of implementation of the “Pod System” of dedicated modular clinical spaces and staffing on Emergency Department (ED) flow as evidenced by ED metrics.

Methods:

ED metrics were prospectively measured at a 21-bed community ED with an approximate volume of 35,000 patients per year for 30-day periods before and after the implementation of the Pod System. Metrics obtained included total census, admission rate, door-to-discharge, door-to-admit, and left without being seen. The Pod System strategic initiatives also included a “SWAT” strategy of rapid evaluation, a “bed ahead” policy in the ED, utilization of internal waiting rooms, and increasing in nursing and paramedic ratios.

Results:

In the pre-implementation period from 9/12/10 through 10/11/10 the Emergency Department had a total census of 2700; the admission rate was 15.2%, with an average door-to-admit time of 308 minutes, and average door-to-discharge time of 171 minutes. A total of 107 individuals left without being seen (LWBS) – a rate of 4%. In the measured period after Pod System implementation, the ED had a total census of 2696; the admission rate was 15.7%, with an average door-to-admit time of 257 minutes, and average door-to-discharge time of 136 minutes. A total of 17 people left without being seen – a rate of 0.6%.

Conclusions:

The Pod System flow process implementation resulted in improvement in ED metrics with decreased length of stays and an 85% reduction in LWBS.

**AUTHORS/INSTITUTIONS:** C. Schrader, R.E. Suter, , University of Texas Southwestern, Dallas, TX;

**ABSTRACT FINAL ID:** M-124;

**TITLE:** The relationship between Manchester Triage discriminators and patients admission

**ABSTRACT BODY:**

**Abstract Body:** The Centro Hospitalar Tâmega - Sousa, EPE is a Portuguese hospital that has 9000 patients /month in the Emergency department attended using the Triage Manchester.

The authors have studied the admitted patients tried by this method in June /2010 (8725 patients) and January/2011 (9044 patients).

The observed priority was in June/10 and January/11 respectively: red (0.6 % , 1% ) , orange (9.4 % , 10.7% ) , yellow (42.2 % , 40.6 % ) , green (40.5 % , 41.7 %), blue (0.8%, 0.5%) and 6 % by administrative reasons.

The flow charts most frequent in June/2010 and January/2011 were: limb problems (20%, 16.3 %), shortness of breath in adults (6.99 % , 11.8 %), unwell adults (8.45%, 10.6 %), abdominal pain in adults (9.2 % , 8.3 %), wounds (6.78 % , 5.1 % ) , back pain (5.2 % , 5.5 %).

Only 7.8 % and 8.5 % of these patients were admitted at June/2010 and January /2011 respectively (red: 48.1 % , orange: 27.5 % , yellow: 11.9 %).

30.3 % of admitted patients were originate from - shortness of breath in adults flow chart.

The authors analyzed all the Triage Manchester discriminators and concluded: the very low SaO<sub>2</sub> (orange) discriminator origins the grater admission rate (50%).

**AUTHORS/INSTITUTIONS:** F.M. Moura, F. Carneiro, , Centro Hospitalar Tâmega Sousa, Penafiel, PORTUGAL;

**ABSTRACT FINAL ID:** M-125;

**TITLE:** What are Patients' concerns about medical errors in Emergency department?

**ABSTRACT BODY:**

**Abstract Body:** Background: Concern about medical errors has been elevated recently. Understanding of how patients conceptualize medical error would help health care providers to diminish safety concerns and increase patient satisfaction. This study was performed to evaluate patients worrisome from medical errors and relationship with patient concern, characteristic and satisfaction.

Methods: This descriptive cross-sectional study was done in an academic emergency department on October 2008 during 1 week period. A questionnaire was performed to assess patients feel from medical errors and their satisfactions according to Likert Scale. Telephone interviews were conducted 7 days after discharge. Data were gathered and analyzed by  $\chi^2$  and t-Tests via SPSS 14 software.

Results: Of 638 patients, 48.3% of them reported experiencing at least one specific error related concern; the most commonly were consuming too much time in emergency ward and mistakes by medical students. Their concerns were associated with age, educational level, length of stay and disposition ( $P < 0.001$ ). 62% of patients showed high satisfaction regarding medical care service. Patient satisfaction was highly related to their concern.

Conclusion: Although many patients felt safety regarding medical care service, but according to stressful situation in emergency departments, understanding of patient concerns, education and good communication with patients could decrease their concerns and increase satisfaction.

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**ABSTRACT FINAL ID:** M-126;

**TITLE:** Ambulatory management of pulmonary embolism in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Ambulatory management of pulmonary embolism in the Emergency Department

#### Introduction

Suspected pulmonary embolism (PE) and to a lesser degree, confirmed PE, are a relatively common condition encountered in the Emergency Department (ED). PEs exhibit a spectrum of clinical severity, from asymptomatic silent PEs in 39%-50% of patients with deep venous thrombosis (DVT) to life threatening massive PE requiring thrombolysis. Validated scoring systems have been developed to identify patients at low risk of adverse outcome. Recent studies suggest that it may be safe to manage a low risk subgroup of patients with PE as outpatients. We extrapolated this to assume PE as the 'worst diagnosis' and infer safety for the use of PESI stratification for low risk suspected PE

#### Method

A retrospective analysis of patients with suspected pulmonary embolism who attended the Emergency Department of the Ulster Hospital Dundonald, and who were managed in an ambulatory care pathway was performed over a 12 month period. Patients with suspected pulmonary embolism and a low PESI score of 1 or 2, with no other contraindication to outpatient treatment were given daily enoxaparin 1.5 mg/kg and a CTPA was requested. Patients attended the Emergency Department for daily enoxaparin injections until the CTPA was performed. On completion of the CTPA patients were reviewed in the emergency department for explanation of the results and if positive, treatment with warfarin and bridging enoxaparin.

#### Results

35 patients were suitable for investigation of suspected PE during the study period. Analysis of these patients suggested that this saved 69 bed days. There were no adverse events (clinical deterioration or bleeding). 3 had positive CTPA scans.

Patients reported high satisfaction with the service.

#### Conclusion

The average cost of a general medical bed per day in our institution is £364. Clearly a shift to outpatient management of PE could both ease bed pressures and reduce costs. This pilot study adds to the limited data available for the ambulatory investigation of suspected PE.

**AUTHORS/INSTITUTIONS:** P. Faulkner, A. McIlwee, , Ulster Hospital Dundonald, Belfast, UNITED KINGDOM;

**ABSTRACT FINAL ID:** M-127;

**TITLE:** THE PHENOMENON OF FOREIGN IMMIGRATION IN AN EMERGENCY UNIT

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: In recent years there has been a demographic shift in the Spanish population. The percentage of immigrants in Aragon has grown from 6,38% in 2005 to 13,39% in 2010. It is important to provide for their involvement in public health and health care resources to plan and take appropriate action.

OBJECTIVE: Knowing the peculiarities of assistance in an emergency unit of a tertiary hospital in the immigrant population and possible differences with the native population.

METHODOLOGY: We reviewed the clinical history data collected in the database PCH (emergency management software) during 2010 a total of 85985 records. It includes age, sex, level of priority in triage, the discharge diagnosis and the patient's fate.

RESULTS: Of all of our reference population, 302,539 people, 15.3% (46,100 people) corresponds to immigrants, with a ratio of visits per year in our Emergency Department 0, 22, similar to that of the native population (0, 21).

The age distribution among the immigrant population (1% > 65 years, 78% from 19 to 65 years and 21% from 0 to 18) differed from that of the native population (31% > 65 years and 53% from 19 to 65 years and 16% of 0-18) reaching statistical significance with  $p < 0.0001$ .

Regarding the level of priority in triage immigrant population was 71% of cases a level IV-V, and the native population in the 35% level I-III, also reaching statistical significance with  $p < 0, 0001$ .

The proportion of diagnoses at discharge for appliances and systems also showed significant differences in connection with OB/GYN frequent in the immigrant population.

The fate of the immigrant patient at discharge was 94% versus 86% in the indigenous population, with a significantly lower percentage of income, 4% vs 11%  $p < 0.0001$ .

CONCLUSIONS: The attendance at our Emergency Unit is similar in immigrants and the native.

Patients younger immigrants have a level of priority in triage also lower and a lower percentage of income.

Highlights the reason for consultation OB / GYN in the immigrant population.

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**ABSTRACT FINAL ID:** M-128;

**TITLE:** Patient and Community Preferences for Out-of-hours Emergency Care Using Best-Worst Scaling

**ABSTRACT BODY:**

**Abstract Body:** In the Netherlands patients in need of acute medical care during out-of-hours can visit the Emergency Department (ED) of the hospital or nearest general practitioner (GP) cooperative. In some areas the GP cooperative has been merged with the ED to increase efficiency, i.e. match the severity of complaints of patients with the most appropriate care and thereby reduce costs. The patient perspective has not been taken into account. The goal of this study is to measure patient and community preferences for emergency care in an ED and (merged) GP cooperative outside office hours.

**Method:** A 'best-worst' scaling experiment quantifies the relative influence of various attributes on the preference for care scenarios. In a questionnaire a respondent is asked to choose the 'best' and the 'worst' care scenario from a set of three alternative scenarios. The scenarios are composed of important attributes (characteristics) of emergency care. The attributes are chosen based on literature search, observations, a survey and interviews with stakeholders. Levels are selected based on key differences between ED and GP care. Additional questions include sex, age, education and experiences with emergency medical care. Through multiple regression analysis a utility function assesses the weights that respondents attach to the attributes.

**Results:** The most important attributes are waiting time, continuity of care, type of health care professional (nurse practitioner, general practitioner, medical specialist), information regarding expected waiting time, and access (appointment needed or not). In May and June 2011 questionnaires have been sent to: 1) patients who recently visited a merged GP cooperative, 2) who visited an ED and 3) random visitors of a local hospital during visiting hours. Each group includes over 100 persons, 18 years or older, living in the Eastern part of the Netherlands.

**Discussion:** By taking into account preferences of (potentially future) patients into the decisions that need to be made regarding organization of emergency care, potential improvements in efficiency of care are more likely to match high patient satisfaction.

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**ABSTRACT FINAL ID:** M-129;

**TITLE:** A Randomized Trial of Computer Kiosk-Expedited Management of Cystitis in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Objective: To assess the efficiency and safety of an interactive computer kiosk module for the management of uncomplicated urinary tract infections (UTI) in emergency departments (EDs).

Methods: This was a prospective unblinded randomized trial. Women age 18 to 64 years seeking care for suspected UTI in 3 urban EDs were referred to a computer kiosk after triage. The kiosk evaluated women for uncomplicated UTI (based on patient report of at least 1 irritable voiding symptom < 7 days, and absence of complicating features), and eligible patients were randomized to expedited management or usual ED care. Expedited management consisted of a brief clinician encounter to confirm computer kiosk responses and selection of 1 of 4 standard antibiotic regimens. Study outcomes included urine culture results, duration of ED visit, time to illness resolution, return visits, and satisfaction with care.

Results: Seventeen percent (n=103) of 624 participants with suspected UTI fulfilled uncomplicated criteria and were randomized. Sixty-nine percent of these women had a positive urine culture. Compared with the control group, the computer-expedited management group had lower median visit duration (89 minutes (IQR: 65, 150) vs. 146 min (IQR: 105, 216) for a decrease of 57 minutes (95% CI 27 to 87, p = 0.0021). They had similar time to illness resolution, return visits and satisfaction with care.

Conclusions: An interactive computer kiosk accurately, efficiently and safely expedites the management of women with uncomplicated UTI in busy, urban EDs. Expanding the use of this technology to other conditions could help to improve ED patient flow.

**AUTHORS/INSTITUTIONS:** J. Stein, B. Navab, B. Frazee, G. Hendey, R. Gonzales, , University of California San Francisco, San Francisco, CA;

**ABSTRACT FINAL ID:** M-13;

**TITLE:** Acute Presentation of Patent Urachus in an Elderly Man

**ABSTRACT BODY:**

**Abstract Body:** An elderly gentleman with a history of vascular dementia presented to our Emergency Department from an extended nursing care facility. He was agitated with a history of pain and swelling around the umbilicus for several days. The nursing staff looking after him had also noticed that the skin around his umbilicus had become red and tender. He was both incontinent of faeces and urine for a number of years. They had arranged transfer to the ED for further assessment.

On examination he had an umbilical swelling. There was a 1 cm fluctuant lump within the umbilicus which was tethered to subcutaneous tissues. The surrounding skin was markedly erythematous, excoriated and warm to touch. On further inspection there was a small amount of sero-sanguinous fluid draining from the area of the lump. Abdominal examination suggested an enlarged urinary bladder and examination of the prostate demonstrated a grossly enlarged gland. A diagnosis of suspected patent urachus secondary to bladder outflow obstruction was made and confirmed on CT. The patient was referred to Urology for further management.

The urachus is a fibrous remnant of the allantois and forms the medial umbilical ligament. The lumen is usually obliterated during the 2nd month of embryonic development. Patent Urachus is an uncommon presentation and is most commonly seen in early life. It can be seen in older age groups when bladder outflow obstruction causes drainage of urine from the umbilicus.

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**ABSTRACT FINAL ID:** M-130;

**TITLE:** Quincke Edema: A Case Report

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: P.A., woman, 19 y.o., was hospitalized in our department because of an allergic reaction after she made a hair dye. Her vital parameters were normal. She had no breathing distress. She had an important edema of the face and the neck; she was unable to open her eyes. During the hospitalization, she developed a dermatitis of the scalp. We treated this reaction with intravenous injection of cortisone and antihistamines with benefit and with progressive resolution of the edema. When she was discharged, we suggested to continue this oral therapy for some days, to avoid hair dye and to cut her hair. DISCUSSION: We discovered that the hair dye contained paraphenylenediamine (PPD), a potent allergic substance that is widely used as a permanent hair dye. It may also be found in textile or fur dyes, dark coloured cosmetics, temporary tattoos, photographic developer, photocopying and printing inks. The use of PPD as a hair dye is popular because it is a permanent dye that gives a natural look. Reaction caused by the use of hair dye in mild cases usually only involves dermatitis to the upper eyelids or the rims of the ears. In more severe cases, as in our patient, there may be marked reddening and swelling of the scalp and the face. The eyelids may completely close and the allergic contact dermatitis reaction may become widespread. Severe allergy to PPD can result in contact urticaria and rarely, anaphylaxis. Patch testing usually reveals hypersensitivity to PPD. In conclusion hair dye that appear harmless can give important allergic reactions. People who know to be atopic should avoid these products.

**AUTHORS/INSTITUTIONS:** L. Brugioni, E. Ciuffoli, P. Palmieri, F. Donati, R. Lazzari, C. Gozzi, , Medicina Interna ed Area Critica Policlinico di Modena, Modena, ITALY;

**ABSTRACT FINAL ID:** M-131;

**TITLE:** Surviving Tramadol Overdose Despite a Lethal Blood Level

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Tramadol is a commonly prescribed centrally acting, synthetic opioid analgesic for the treatment of moderate to severe pain. In comparison to other opioids, it is considered to have a low abuse potential and devoid of side effects like drug dependence. CASE REPORT: We report a case of a 27 year old female with isolated tramadol overdose, having a peripheral blood tramadol concentration of 4 mg/L, which exceeds the lethal blood concentration of 2mg/L. DISCUSSION: When taken in overdose it is known to be associated with significant morbidity and mortality. The most common symptoms of tramadol overdose were CNS depression, nausea and vomiting, tachycardia and seizures. Also, tramadol overdose might present with features of the serotonin syndrome due to the SNRI properties of the drug, which may include neuromuscular hyperactivity (myoclonus and hyperreflexia), autonomic hyperactivity (tachycardia and pyrexia) and altered mental state (usually agitation, excitement and later confusion). Few cases due to tramadol overdose alone, either intentional or accidental, have been reported and majority of them have resulted in death. Our case report is the first where a patient with isolated tramadol overdose has survived despite having blood concentrations of 4mg/L, which are higher than the lethal concentration. In conclusion, physicians should be aware that patients with tramadol overdose may only present with signs and symptoms related to isolated SNRI properties and not always associated with the features of classical opioid overdose. Some patients taking tramadol might exhibit a certain degree of tolerance to the drug after prolonged prior exposure to the medication, and this tolerance could extend beyond the therapeutic range. It also emphasizes the need for physicians to be more cautious while prescribing tramadol to their patients.

**AUTHORS/INSTITUTIONS:** S. Pothiawala, R. Ponampalam, Emergency Medicine, Singapore General Hospital, Singapore, SINGAPORE;

**ABSTRACT FINAL ID:** M-132;

**TITLE:** Over-the-Counter Kaolin and Morphine - Two hazards in One

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: A 56 year old lady admitted with hypokalaemia, hypertension and metabolic alkalosis is presented. She was found to be dependent on kaolin and morphine, a common agent used for the treatment of diarrhoea. This case report highlights the problems of an over-the-counter (OTC) medicine such as kaolin and morphine when it can be purchased in large quantities. DISCUSSION: Learning Points - Kaolin and morphine is an OTC medicine used for symptomatic relief of diarrhoea. While it remains available without prescription there is an increased risk that the opiate containing mixture may be subject to abuse. Laboratory characteristics are those of hypokalemia, metabolic alkalosis and low urinary potassium due to total body depletion and often despite the ongoing kaliuretic effect. The hypokalemic effects of the mixture are caused by both sodium bicarbonate and the liquorice contents causing a kaliuresis as well as kaolin's binding capacity for potassium in the gut, whilst the morphine component can result in respiratory depression. Clinicians should specifically ask about OTC medicines or "alternative remedies" when taking a drug history.

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**ABSTRACT FINAL ID:** M-133;

**TITLE:** Ethylene Glycol Intoxication: Case Report with Overview of Diagnostic and Therapeutic Resources

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: An emergency department daily receives many patients presenting a wide range of diagnostic and therapeutic challenges. CASE REPORT: Our case concerns a 17-year-old male adolescent with signs of depression. After intensive questioning it became clear he intoxicated himself deliberately with large quantities of antifreeze. Ingestion of the fluid occurred approximately 6 hours before seeking our help. A blood sample revealed high levels of ethylene glycol, with aberrant anion gap. The patient was treated successfully by combining intravenous administration of Fomepizole antidote with continuous hemodialysis therapy. He recovered quickly and could be transferred to the psychiatry department. DISCUSSION: We will provide an overview of known literature concerning swift diagnostic and therapeutic means.

**AUTHORS/INSTITUTIONS:** T. De Wolf, K. Vandeveldel, Emergency department, AZ Sint-Jan Bruges, Oostakker, BELGIUM;

**ABSTRACT FINAL ID:** M-134;

**TITLE:** AN ATROPA BELLADONNA L. POISONING WITH ACUTE SUBDURAL HEMATOMA

**ABSTRACT BODY:**

**Abstract Body:** Atropa belladonna L. is a plant long known to cause poisoning. But no cases of acute subdural hematoma resulting from such poisoning have been reported so far. Care must also be taken in terms of acute pancreatitis and rhabdomyolysis in cases of such poisoning. The plant may sometimes be mistaken for the Caucasian blueberry, *V. arctostaphylos* L.. At least one anti-cholinesterase toxidrome finding was determined in all the nine cases of belladonna poisoning in this series. No elevated creatine kinase was reported in one case with acute subdural hematoma and hyperamylasemia.

Key words: Clinical toxicology, poisonings, natural toxins/toxinology.

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**ABSTRACT FINAL ID:** M-135;

**TITLE:** Transdermal methanol poisoning

**ABSTRACT BODY:**

**Abstract Body:** Methanol is a substance possessing high toxicity even in small quantities. It may lead to intracerebral hemorrhage, blindness and death. Methanol poisoning generally takes place as the result of oral ingestion, but may rarely occur through inhalation or transdermally. In this case report we describe a 55-year-old male with methanol poisoning as a result of rubbing a self-prepared mixture of blue spirit and aspirin on his shoulder with the aim of alleviating pain.

Key words: Methanol, poisoning

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**ABSTRACT FINAL ID:** M-136;

**TITLE:** Water pipe smoking-associated carbon monoxide poisoning

**ABSTRACT BODY:**

**Abstract Body:** The water pipe is a form of tobacco consumption widespread in Turkey and Arab countries. In this case report we present two patients, one a male aged 21 and the other a female aged 20, brought to our emergency department due to syncopal attack following water pipe use. This rare form of carbon monoxide poisoning should be borne in mind by emergency physicians as differential diagnosis. Water pipe smokers should not use indoor or they should refresh the surrounding air frequently.

Key words: Toxicology, poisoning, carbon monoxide, water pipe

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**ABSTRACT FINAL ID:** M-137;

**TITLE:** Calcium channel blocker sustained-release: only 3 tablets can be life threatening

**ABSTRACT BODY:**

**Abstract Body:** Introduction. The majority of reported severe cases of verapamil toxicity are due to massive, intentional overdoses. We present an unusual case of accidental life threatening intoxication after ingestion of only 3 tablets of the sustained-release (SR) form (240 mg).

Case report. A 21-year-old woman was admitted to the emergency department 15 hours after an accidental ingestion of 720mg of verapamil SR all at once. She had been under treatment for a paroxysmal atrial flutter with a half tablet of Verapamil SR for about 2 years. Because of persistent muscular neck pain, she took verapamil SR by mistake thinking that it was acetaminophen. On admission, the patient was conscious but suffering from abdominal pain and was vomiting. The heart rate was 58 bpm and the blood pressure 85/47 mmHg. Her weight was 45kg. A 12-lead electrocardiogram demonstrated a junctional rhythm with presence of U waves (Fig.1). Blood gases showed: pH 7.41, bicarbonate 17mmol/L and plasma lactate 7.6mmol/L. Urgent blood tests revealed acute renal failure (creatinine 163 $\mu$ mol/L, urea 7.4mmol/L) and a low serum potassium level (2.7mmol/L). The patient was given IV fluids and 10 mg of calcium chloride. The blood pressure reached 70/39mmHg with a pulse rate of 46bpm. So a dopamine infusion was initiated and the patient was transferred to the Intensive Care Unit. Because of on-going cardio-vascular instability, a pulmonary-artery catheter was installed to allow optimal titration of catecholamine. The measurement revealed a vasoplegic shock (CI 7.5 l/min/m<sup>2</sup>, CVP 15mmHg, SVR 694 dynes/cm<sup>5</sup>/s). Six hours later the patient's condition became stable and she was discharged 24 hours later.

Discussion. Accidental ingestion of a low dose of verapamil SR could lead to severe intoxication. It is recognised that there is a risk of toxicity when more than 10mg/kg is ingested. In our case, a healthy young woman, 720mg produced a severe cardio toxicity with junctional rhythm and vasoplegic shock requesting Intensive Care management. The small BMI of our patient (17,6 kg/m<sup>2</sup>) can account also for the severity of the symptoms despite the chronic treatment with CCB.

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**ABSTRACT FINAL ID:** M-138;

**TITLE:** Severe combined lactic acidosis, ketoacidosis and hypoglycemia as a result of acute on chronic ethanol intoxication

**ABSTRACT BODY:**

**Abstract Body:** Acute ethanol intoxication can present with metabolic acidosis with high anion and osmotic gap. Combined with severe hypoglycemia it can cause life-threatening disorders.

A 47-year old woman presented to the emergency department after being found unconscious at home, lying there several hours with prolonged fasting. The emergency team noticed a smell of ammonia surrounding the patient. Her past medical history showed multiple acute ethanol intoxications, but intensive care was never needed. Clinical examination was unremarkable. Blood analysis can be found in image 1. Urine toxicology screening was negative. A ketones urine test was positive. Radiographs of the thorax and an ECG were normal. After administering 5 gram glucose intravenously, the patient quickly regained consciousness. The smell of ammonia and relatives telling the patient didn't drink alcohol that day, raised suspicion for a more complex cause of the osmotic gap.

Reviewing clinical values, ethanol was considered as the principal cause and no investigations for other intoxications were performed.

This clinical image can be explained by a combined type A and B lactic acidosis, alcoholic keto-acidosis and hypoglycemia (image 2).

Tissue hypoxia following dehydration causes type A lactic acidosis.

Type B lactic acidosis is caused by non-hypoxic origins, in this case solely ethanol.

Acute ethanol intoxication increases NADH/NAD<sup>+</sup>, rising lactate production. Chronic ethanol abuse decreases lactate elimination by liver, decreased conversion of pyruvate to acetyl-CoA and decreased use in gluconeogenesis following thiamine/biotin deprivation.

Keto-acidosis develops by increased lipolysis and beta-oxidation of free fatty acids with subsequent increase of ketones.

Hypoglycemia is caused by reduced carbohydrate intake by starving and exhaustion of glycogen reserves following decreased gluconeogenesis.

Early recognition and aggressive treatment, which implies fluid resuscitation, acidosis correction and administering glucose and thiamine, will achieve satisfactory outcome.

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**ABSTRACT FINAL ID:** M-139;

**TITLE:** An antidote needs analysis in a Chilean Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Background: An expert consensus guideline proposal by American toxicologists, for Antidote Summit Authorship Group, recommends stocking a simplified list of antidotes. The relevance of this list and its external validity for overdoses in other countries is unknown. The aim of this study was to compare their antidote stocking recommendations with overdoses at a public Emergency Department (ED) in Chile to understand its relevance to practice. Methods: An explicit retrospective chart review was conducted on all ED records from July 2008-June 2010 which identified "overdoses", or a toxicologic clinical issue related to overdose. All patients over 7 years old were included, drugs determined by history and clinical toxidrome were compared to the Antidote Summit Guideline (ASG) of 2009. Mortality was recorded. Results: 1568 overdoses were identified. The main drugs involved were 34.3% benzodiazepines, 15.8% SSRI, 9.9% TCA, 7.7% antipsychotics, 7.0% anticonvulsants, 6.7% muscles relaxants, 5.3% NSAID, 5.1% antihistaminic and 4.5% acetaminophen. Many patients were intoxicated by more than one drug (34.3%) and alcohol was a common co-ingestion (Table 1). The most useful antidotes in the Chilean setting were N-acetylcysteine and possibly selectively used flumazenil. There was one case of digitals related toxicity identified, and there were no cases of cyanide toxicity. In the 7 deaths (0.45%) TCA, betablockers, calcium channel blockers, and sulfonylurea were the drugs involved. Supportive care and currently available antidotes were utilized to successfully treat all of the other patients. In Chile, expensive antidotes such as Digoxin Immune Fab and hydroxycobalamin (or cyanide antidote kit) would not have impacted the outcomes in any of these overdoses. Glucagon and octreotide might have a role in overdose management in Chile (Table 2). Conclusions: The ASG stocking recommendations may not be valid in beyond the USA and should be guided directly by overdose data in other countries. Expensive antidotes have very limited utility for Chilean overdose patients because most of them respond to supportive care and existing antidotes.

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**ABSTRACT FINAL ID:** M-14;

**TITLE:** Emergency Physicians Ideas on Emergency Abdominal Ultrasonography

**ABSTRACT BODY:**

**Abstract Body:** Aim: To evaluate ideas of emergency physicians (EP) on emergency abdominal ultrasonography (EAUS) in management of patients with abdominal pain. Method: In May 2011, a questionnaire has been performed to EP work in different emergency departments in Turkey. They were asked if EAUS was useful in the management of patients with abdominal pain in the ED. The questionnaires replies have been evaluated. Results: 33 EP answered the questionnaire. 12 EP have been used EAUS for 1 year, 5 EP for 2 years, 1 EP for 3 years, 3EP for 4 years and 12 EP for 5 years. Questions and answers were presented on Table 1. Conclusion: EP used EAUS generally believe in usefulness and performing EAUS in emergency clinical practice.

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**ABSTRACT FINAL ID:** M-140;

**TITLE:** Fatal Metformin Poisoning With Hyperglycemia And Acute Pancreatitis In A Child

**ABSTRACT BODY:**

**Abstract Body:** Metformin is a biguanide anti-hyperglycemic drug which is the most commonly prescribed oral agent to treat diabetes mellitus. We report the case of an intentional overdose of metformin in a pediatric patient which resulted in hyperglycemia early in the clinical course and fatal lactic acidosis.

Case: A 16-year-old female, with no DM history, ingested over doses metformin in a suicide attempt with 30-35 tablets of 850 mg each.

The patient hospitalized in pediatric intensive care unit. Vital signs were temperature of 35.2°C, pulse of 113 beats/min, blood pressure of 76/35 mmHg, respirations at 20 breaths/min on intubated. GCS score was 3. Arterial Blood Gas (ABG): pH 6.7, PCO<sub>2</sub>: 13.2, HCO<sub>3</sub>: 3.9, BE: -30 mmol/L, Lactate: 4.54 mmol/L. Serum Glucose: 393 mg/dL BUN: 27 mg/dL. Creatinin 3.9 mg/dl. Amylase: 531 U/L, WBC 60.000/mm<sup>3</sup>

On clinical course, 2000 cc/m<sup>2</sup> total fluid was given. NaHCO<sub>3</sub> (2 mEq/kg) was given in two hours, 0.1 units /kg insulin infusion was started. She was taken with nasogastric free drainage for acute pancreatitis. She was dialyzed two times for intoxication and acute renal failure. She died 48 hours after admission to hospital because of multiple organ failure.

Conclusion: The hyperglycemia might have been due to pancreatitis. The patient's peak serum glucose level of 396 mg/dL is the highest yet reported in a pediatric case of metformin poisoning.

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**ABSTRACT FINAL ID:** M-141;

**TITLE:** Toxic epidermal necrolysis presenting as an “unimportant” coetaneous rash without itch

**ABSTRACT BODY:**

**Abstract Body:** Objective: Toxic Epidermal Necrolysis (TEN) is a severe adverse drug-reaction related to idiosyncratic mechanism, characterized by low incidence but high mortality (1). We report a case of severe diphenylhydantoin-related TEN. Case report: A 74 years-old female was admitted to the Rehabilitation Unit (RRF) with a diagnosis of “Left hemiparesis after surgery of frontal and right parietal repetitive lesions”. One month before a well-tolerated therapy with diphenylhydantoin 100 mg/tid had been started. A week after RRF admission, an erythema without itch appeared in jugular and parasternal region. It was absent in the clothing covered areas. Loratadine 10 mg/day was started. The next day the erythema extended on the neck, so topical dexamethasone was added. During the following 4 days the patient presented erythema extending to the back with a tendency at the confluence of lesions. Therapy with diphenylhydantoin was replaced with levetiracetam. Serum diphenylhydantoin was 11.4 mcg/ml (n.v. 10-20). A skin biopsy confirmed the diagnosis of toxic epidermal necrolysis. Therapy with methylprednisolone 80 mg/day, antibiotics, fluids, electrolytes and albumin up to 3000 ml/day of intravenous solution was performed. The patient was then sent to a Dermatology Burn Unit where supportive therapy and treatment with immunoglobulin were administered, followed by gradual resolution of signs and symptoms within the following month. Conclusion: TEN is a reported rare disease (incidence 0.01%) but burdened by 61% mortality if skin loss is more than 30%. The disease onset is insidious and it could appear as an “unimportant” cutaneous rash, without itch. The blisters appear quite lately, then the disease progress rapidly. TEN may be related to several drugs involving antiepileptics, allopurinol, cephalosporins, penicillins, oxicam. When TEN is suspected immediate drug discontinuing and prompt replacement with other drugs (that are not reported to be risky for TEN) must be evaluated. References: 1. Lissia M et al. Toxic epidermal necrolysis (Lyell's disease). *Burns*. 2010 Mar;36(2):152-63.

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**ABSTRACT FINAL ID:** M-142;

**TITLE:** Prolonged vaginal retention of alkaline batteries and burn injury

**ABSTRACT BODY:**

**Abstract Body:** Objective: To evaluate the risk of metal absorption and toxicity in a case of intravaginal retention of alkaline batteries. Diagnosis may be difficult as young girls rarely admit the self insertion. Case report: A 16-year-old girl was admitted to the gynaecologic clinic for lower abdominal pain, genital itching and irritation. She referred that 1 month before during a sexual intercourse her boyfriend inserted two alkaline batteries (type-AAA) into the vagina. The patient denied sexual abuse. Physical examination revealed a healthy girl weighing 70 Kg with normal vital signs and body temperature. Laboratory data at admission showed leucocytosis (19,500 cells/mm<sup>3</sup>), normal haemoglobin (13.5 g/dL), mild increase of C-reactive protein (1,5 mg/dL). Pelvic examination was performed under anesthesia because of intense inflammation and pain. Vaginal foreign bodies (two cylindrical alkaline batteries) were extracted and appeared not clearly intact and slightly eroded. Vaginal mucosa was brown, easily bleeding and difficult to evaluate for copious gray vaginal discharge. Cultural exam of vaginal discharge was negative for infections. Vesical and rectal fistulas were excluded and irrigation of the vagina was performed. Antibiotics were administered in addition to healing vaginal tablets. A sample of blood (B) and of 24-hours urine (U) was collected in order to exclude metal toxicity. Cadmium (B=0.4 mcg/L; U=0.1 mcg/L), manganese (B=0.2 mcg/L; U=0.4 mcg/L), lithium (B=<0.1 mcg/L; U=<100 mcg/L), zinc (B=154 mcg/dL; U=248 mcg/dL), lead (B=<0.1 mcg/dL; U=<0.5 mcg/dL) and copper (B=126 mcg/dL; U=41 mcg/dL) resulted within normal values. One month after first evaluation, healing was complete and no stenosis was evident. Conclusion: Prolonged retention of batteries may cause severe local burns [1] and metal toxicity, if the battery content leakage was noted, should be evaluated. In this case metal toxicity did not develop despite one month of vaginal mucosal exposure to the metals released by the batteries. References: 1. Huppert J et al. Vaginal burn injury due to alkaline batteries. *J Pediatr Adolesc Gynecol* 2009; 22: 133-136.

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**ABSTRACT FINAL ID:** M-143;

**TITLE:** Bitis parviocula (Ethiopian mountain adder) envenomation in Italy: role of the antidotic treatment

**ABSTRACT BODY:**

**Abstract Body:** Objective: Bitis parviocula is a venomous viper species found in the highlands of south-west Ethiopia and expensively sold on the black market of snake keepers in Europe and the USA. While zoological information of this rare specimen is available, analyses of venom composition are missing. The first case of a bite by this species has been recently reported in the USA (1). To our knowledge no other human cases are published so far. We report the second case of human envenomation by Bitis parviocula. Case report: A 44 year-old man was bitten on the third finger of his left hand while attempting to feed his specimen of Bitis parviocula. He presented to the emergency department 1 hour after the bite with local pain and mild swelling that peaked on 3rd day. ECG and laboratory findings resulted normal with the exception of: D-Dimer, peak 939 mcg/l within first 24 hours. (n.v. <250); Platelets 83.000/mm<sup>3</sup> (n.v. 140,000-440,000). Two vials of SAIMR Polyvalent Snake Antivenom were given 18 hours after the accident and 3 more were administered 7 hours later for worsening local oedema. Due to the onset of progressive circulatory impairment at left-hand a fasciotomy was performed on 5th day. Ten sessions of hyperbaric therapy were administered. The whole forearm returned to its normal volume within 2 weeks, whereas the bitten finger presented a persistent claw-like pattern as a complication of the fasciotomy. Conclusion: The first case of Bitis parviocula human envenomation described in the literature was registered in Texas in May 2009. Our case occurred two months later in Italy, being the first event in Europe. Clinical symptoms consisted of local reactions with pain and swelling. Systemic toxicity was absent. As there is no specific antivenom for this species, polyvalent antivenom was administered. This measure was ineffective in preventing the development of a compartment syndrome. Acknowledgements Prof. Dr. Böhme Wolfgang, Zoologisches Forschungsmuseum Alexander König, Bonn, Germany. Reference: 1 Fernández MC, González A.: Ethiopian Mountain Viper Envenomation in South Texas. Abstract, NACCT 2009, San Antonio, TX, USA.

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**ABSTRACT FINAL ID:** M-144;

**TITLE:** Latrodectus tredecimguttatus poisoning

**ABSTRACT BODY:**

**Abstract Body:** Objective: Latrodectus tredecimguttatus is an arachnid of the black widow spiders family, recognizable for its 13 red spots on the black dorsum. Its venom may cause local and systemic effects. We describe 2 cases of severe poisoning. Case 1: A 28 year-old patient presented to Emergency Department (ED) referring profuse sweating, chest, abdominal and back pain, dyspnoea, urinary retention, hyperthermia. Aortic dissection and pulmonary embolism were excluded. Later, the patient referred he had felt a sting on his calf and seen a black red-spotted spider. The bitten area was mildly hyperaemic. Latrodectus bite was suspected and symptomatic treatment was started. During the following hours a diffuse cutaneous rash appeared. The following day the patient still presented muscular and abdominal pain, angor, hypertension, leukocytosis, troponin I increase. ECG and cardiac ultrasound normal. He completely recovered on day 5 after symptomatic treatment. Case 2: A 62 year-old man presented to ED with a sting at his hand. At admission he presented sudden chest, dorsal and abdominal pain, sweating and transient loss of consciousness. Chest X-ray, ECG, haematochemical and cardiac enzymes were normal. Subsequently the patient developed syncope. After regain of consciousness, he presented mild dysarthria, VII cranial nerve deficit, hyposthenic omolateral arm, hypotension. Encephalic and chest CT-scan resulted negative. In correspondence of the sting an ecchymotic-oedematous lesion, lymphangitis up to the axilla appeared, with leukocytosis and D-dimer increase. Latrodectus bite was suspected and cristaloids, steroids, antihistaminics and antibiotic profilaxis were administered with improvement until discharge on day 17. Conclusion: Latrodectus venom contains proteins and enzymes that bind to specific receptors, increasing cell membrane permeability and releasing acetilcoline. Local lesions can be accompanied by muscular, chest and abdominal pain, altered consciousness, vomiting, respiratory and cardiac failure and cutaneous rash. Persistence of symptoms varies depending on quantity of venom inoculated. Serum antilatrodectus could be efficacious, but wasn't available in Italy.

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**ABSTRACT FINAL ID:** M-145;

**TITLE:** Italian viper envenomation complicated by multiple splenic infarctions

**ABSTRACT BODY:**

**Abstract Body:** Objective: To describe a case of viper envenomation where a progressive increase of D-dimer levels was correlated to multiple splenic infarctions. Case: A 66-year-old man was admitted to the ED 10 hours after a viper-bite on his right hand: a painful oedema was present up to the elbow and the patient referred several episodes of diarrhoea. The next day the oedema appeared unchanged while laboratory tests revealed an increase of D-dimer (3,916 ng/ml), WBC (20,700/mm<sup>3</sup>), AST (106 IU/L) and CPK (1247 IU/L), so treatment with low weight heparin (LWH) was started. An echo-colour-Doppler was negative for signs of thrombosis. The following day D-dimer was 20,000 ng/ml and started decreasing during the following 24 hours. From day 4 the oedema progressively improved; in the meanwhile LWH was suspended because the patient developed a mild haemolytic anaemia (haemoglobin 11.8g/dL). On day 8 WBC and platelets decreased to 14,000 and 76,000/mm<sup>3</sup> respectively; D-dimer was 13,000 ng/ml. On day 9, an abdominal echography showed a spleen enlargement (up to 16 cm) with non-homogeneous areas. A contrast CT-scan revealed areas of hypodensity due to multiple infarcts occupying most of the parenchyma; no signs of thrombosis were detected. Considering the stable levels of haemoglobin and platelets, LWH was re-started at low dosage. The areas of infarction slightly reduced during the following 5 days, so the patient didn't undergo splenectomy and was discharged on day 21 with a program of follow-up of abdominal echographies. At 6 months from the viper-bite diameters had normalized and non-homogeneous areas were still present in 50% of the spleen parenchyma; D-dimer was 14,000 ng/ml. Conclusions: Considering the limited severity and the stability of clinical conditions during the first 24 hours, Fab-fragments were not administered. The progressive increase of D-dimer suggested to look for possible thrombosis despite improvement of general conditions. In this case D-dimer has been an important marker for identification of a severe systemic effect of viper venom and permitted to identify a rare complication such as splenic infarction.

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**ABSTRACT FINAL ID:** M-146;

**TITLE:** The Clinical Characteristics of Organophosphate Intoxication in Geriatric Patients

**ABSTRACT BODY:**

**Abstract Body:** Study objective: The plasma cholinesterase activity can vary with a variety of physiological factors. We performed this study to evaluate the clinical characteristics of organophosphate intoxication in geriatric patients.

**Methods:** We conducted a retrospective study of 137 patients (geriatric group mean age  $72\pm 6$  years, non-geriatric group mean age  $48\pm 12$  years) who ingested organophosphate insecticides from January 2000 to December 2008. Patients were divided into two age groups: less than 65 years of old (non-geriatric group,  $n=90$ ), and over 65 years of old (geriatric group,  $n=47$ ). We excluded liver cirrhosis, cancer, malnutrition, low serum albumin states, and infection.

**Results:** The incidence rate of shock and CNS depression were significantly different between geriatric and non-geriatric group (39.6% vs 19.6%,  $p=0.010$  ; 38.3% vs 18.3%,  $p=0.010$ ). While the plasma cholinesterase level recovered gradually in geriatric group, it recovered rapidly in non-geriatric group (15 days after ingestion :  $1,486.7\pm 1,237.7$  vs  $3,394.0\pm 1,835.1$  U/L,  $p=0.000$ , 20 days after ingestion :  $1,698.7\pm 925.4$  vs  $4,437.9\pm 2,131.9$  U/L,  $p=0.000$ ). The initial plasma cholinesterase level didn't differ between two groups ( $1,138.21\pm 2,251.26$  vs  $863.11\pm 1,792.53$ ,  $p=0.724$ ).

The clinical severity of poisoning (assessed by the Namba Scale) in geriatric group was higher than non-geriatric group (63.8% vs 51.1%,  $p=0.050$ ). The mortality rate in geriatric group was higher than that of non-geriatric group (22.4% vs 8.2%,  $p=0.022$ ). The incidence rate of aspiration pneumonia, amount of ingestion, the mean blood pressure, the mean pulse rate, the mean respiratory rate, and pH, PaO<sub>2</sub>, PaCO<sub>2</sub>, the lactate level and the amylase level didn't differed between two groups.

**Conclusion:** The organophosphate intoxication in the geriatric group cause more severe clinical manifestations such as shock, CNS depression. The geriatric patients recover gradually the plasma cholinesterase level after organophosphate intoxication.

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**ABSTRACT FINAL ID:** M-148;

**TITLE:** Cocaine-related QTc prolongation

**ABSTRACT BODY:**

**Abstract Body:** Background: Cocaine intoxication produces cardiac rhythm disturbances and myocardial ischemia. Prolongation of the corrected QT interval (QTc) is one of the first signs of myocardial ischemia. The objective of this study was to assess the presence of QTc prolongation in subjects with symptoms of cocaine intoxication attended in the Emergency Department and to determine whether QTc prolongation correlated with plasma and urinary levels of the cocaine metabolite benzoylecgonine.

Patients and methods: All cases of cocaine intoxication registered in 2009 were reviewed. Cocaine intoxication was defined by a positive quantitative test in urine or recognition of consumption. Age, sex, and use of drugs that could affect QTc duration were recorded. A prolonged QTc was considered > 450 ms. Quantitative levels of benzoylecgonine in plasma and urine were measured. Controls were non-cocaine users.

Results: A total of 44 subjects (positive quantitative test 34, recognition of consumption 10) and 18 controls were included in the study. The mean age was  $33.7 \pm 9.6$  years. Seventy-three percent were males. There were no significant differences in demographics between cocaine consumers and controls. QTc was 44.5 ms in cocaine consumers and 411.1 ms in controls ( $P < 0.001$ ). The percentage of subjects with QTc > 450 ms was higher in cocaine consumers than in controls (59.1% vs. 16.7%,  $P = 0.002$ ). Neither plasma nor urine benzoylecgonine levels correlated with QTc duration ( $r = 0.13$ ,  $P = 0.443$ ;  $r = 0.093$ ,  $P = 0.713$ ). Fifteen patients were treated with drugs that may affect QTc interval but differences between these patients and those who did not use these drugs were not found (444.2 vs. 448.4 ms,  $P = 0.908$ ) nor in the percentage of subjects with prolonged QTc (60% vs. 58.6%,  $P = 0.930$ ).

Conclusions: Subjects with cocaine intoxication showed more prolonged QTc and a higher percentage of subjects presented abnormal QTc prolongation. These findings were not influenced by the use of drugs that potentially may prolong QTc interval. Duration of QTc interval and benzoylecgonine levels were not correlated.

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**ABSTRACT FINAL ID:** M-149;

**TITLE:** Clinical Features in grayanotoxin Poisoning: A Single Center Experience

**ABSTRACT BODY:**

**Abstract Body:** The aim was to evaluate the clinical findings of patients who admitted to the hospital with the diagnosis of grayanotoxin poisoning. Fifteen patients were included in this study. Eight patients were female (53.3%) and the others male (46.7%). Mean age of patients was 56.3 (44–79). The most frequently observed findings were nausea-vomiting (100%), dizziness (86.7%), and blurred vision (33.3%) and others symptoms and signs were generalized weakness, chest discomfort, mental change, and sweating. Average heart rate was  $53.4 \pm 12.9$  beats/min. During the initial electrocardiogram examination in emergency department (ED), sinus bradycardia was observed in 12 (80.0%) patients. 3rd degree AV block and preexcitation were revealed in two and one patients, respectively. Other rhythm disturbances were not shown during the follow up in the ED. Mean systolic and diastolic blood pressures were  $74.7 \pm 16.4$  mmHg and  $47.3 \pm 13.9$  mmHg, respectively. The mean time to onset of symptoms was  $1.0 \pm 0.9$  h. The length of stay in hospital was  $13.7 \pm 7.8$  h (3.5–36). Any death event was not observed. All patients were discharged from the ED after symptomatic management including fluid, atropine, or vasoactive drugs. Sources of Grayanotoxin were *R.brachycarpum* (53.3%), *R.mucronulatum* (20.0%), *R.schlippenbachii*, (13.3%) and Himalaya mad honey (13.3%). Blurred vision in poisoning by *R. brachycarpum* was characteristic clinical features in comparing with non *R. brachycarpum* group ( $p=0.026$ ). In conclusion, Grayanotoxin poisoning in our study was produced by the ingestion of *rhododendron* spp. Therefore,

When patients with no specific medical history visit a hospital with reports of bradycardia, hypotension, dizziness, or blurred vision, it is advisable to confirm whether they have ingested a decoction or any wine made from *rhododendron* spp. This may make it possible to avoid unnecessary examination and to provide quick treatment for these patients.

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**ABSTRACT FINAL ID:** M-15;

**TITLE:** Association of Risk Factors with UGIB and Etiology of UGIB in ED Patient

**ABSTRACT BODY:**

**Abstract Body:** Background: to investigate the association of risk factors with UGIB and etiology of UGIB in ED patient. Because Gastrointestinal bleeding is a relatively common problem encountered in emergency medicine and significant UGIB requiring admission is very common in adults.

Methods: this observational study conducted in an educational hospital in Shahid Beheshti University in Iran–Tehran during a period of six months. In this study patients with signs and symptoms of gastrointestinal bleeding were enrolled. Demographic and historical features including age, sex chief complaint, history of gastrointestinal problem ,NSAIDS ingestion and alcohol use were recorded then patients were examined by endoscopy.

Results: 60 patients studied , 50 patients had documented UGIB according to the Endoscopic Study, 64% of patients was male .the most common symptom of the patients were hematemesis (66%), Positive History of considerable gastrointestinal problems were 40%, possible role of NSAIDS in 54%. Regarding the endoscopic reports the most common finding was erosive hemorrhagic gastritis (36%), duodenal ulcer 22%, gastric ulcer 22%. 60% of the patients needed transfusion and mortality Rate was 8%.

Conclusion: NSAIDS was the most important risk factor for UGIB and erosive hemorrhagic gastritis was the most common cause of UGIB.

**AUTHORS/INSTITUTIONS:** P. Kashani, A. Afshar, , shahid beheshti university, Tehran, IRAN, ISLAMIC REPUBLIC OF;

**ABSTRACT FINAL ID:** M-150;

**TITLE:** Clinical Features in Poisoning caused by the phytolaccaceae: A Single Center Experience

**ABSTRACT BODY:**

**Abstract Body:** The aim was to evaluate the clinical findings of patients who admitted to the hospital with the diagnosis of poisoning by the phytolaccaceae. Fifty-one patients were included in this study. Thirty-two patients were male (62.7%) and the others female (37.3%). Mean age of patients was 41.5. The reason of poisoning was ingestion of the phytolaccaceae roots for therapeutic purpose or misidentification as roots of ginseng, *condonopsis lanceolata*, or bellflowers. Most patients showed normal vital signs on ED presentation. The most frequently observed findings were vomiting (98%), nausea (92.2%), diarrhea (62.7%) and abdominal pain (62.7%). Any coma or death event was not observed. Mean time to onset of symptoms was  $106 \pm 58.7$  min. All patients were discharged from the ED after symptomatic management including administration of parenteral fluids, antispasmodics, or antiemetics. The length of stay in hospital was  $855.0 \pm 351.7$  min. In conclusion, poisoning caused by the phytolaccaceae is mild, and GI irritation is common clinical features toxicologically. And, in Korea, because poisoning is caused by misidentification in most patients, public information and education to prevent misidentification are necessary.

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**ABSTRACT FINAL ID:** M-151;

**TITLE:** Clinical evaluation and management of caustic injury in an emergency department

Özlem Yigit, Engin Senay, Neslihan Sayraç, Oguz Dursun

**ABSTRACT BODY:**

**Abstract Body:** Introduction

The ingestion of caustic substances accidentally can represent a serious medical problem especially in children. Ingestion of caustic materials causes a wide spectrum of injuries depending on ingested agent, volume, concentration, and time of exposure. The aim of this retrospective study of emergency department (ED) patients in all age groups with caustic injury is to determine the demographics, endoscopic findings, treatment regimen, and clinical outcome of patients.

Methods

From 2005 through 2010, all patients admitted to the ED and recorded as 'caustic injury' according to ICD-10 codes in the hospital database were enrolled to the study. The demographics of patients were recorded from patient charts retrospectively.

Results

A total of 121 patients were enrolled to the study, of which 64 (52.9%) were male and, 57 (47.1%) were female. The majority of patients (n=71, 58.7%) were within 2-8 age group (min 6 months, max 74 years). The most common caustic substances were household cleaning products, lime cleaner (acid) in 24.8%, bleach in 19.8% and oil cleaner in 18.2%. 96.7% of cases were ingested caustics accidentally. Endoscopy were performed in 41 (33.8%) patients. Seven patients with long term complications were all in the early endoscopy group in which endoscopy performed within 24 hours.

Conclusion

Caustic ingestions were mainly seen accidentally in childhood and the most common substances were household cleaning products. For preventing these injuries, family educations should be planned. The risk of severe damage increases in patients with signs and symptoms and early endoscopy within 24 hours is mandatory in these patients. Patients who accidentally ingested small amounts of caustics and asymptomatic in the ED can be treated with observation and endoscopy can be delayed or cancelled.

**AUTHORS/INSTITUTIONS:** N. Korkmaz Sayraç, Emergency Medicine, Mediterranean University School of Medicine, Antalya, TURKEY;

**ABSTRACT FINAL ID:** M-152;

**TITLE:** Cerebral hemorrhage, infarction, and acute pancreatitis in association with Ecstasy abuse: Three case reports

**ABSTRACT BODY:**

**Abstract Body:** The semisynthetic amphetamine 3,4-methylenedioxymethamphetamine (MDMA) also known as 'Ecstasy', is a neurotoxic and hepatotoxic drug. Amphetamine overdose is well known to cause sympathetic stimulation. Cerebral hemorrhage, infarction, and acute pancreatitis are serious complications associated with the consumption of ecstasy. We report cerebral hemorrhage, infarction and a first report in literature of pancreatitis in association with Ecstasy abuse in three cases.

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**ABSTRACT FINAL ID:** M-153;

**TITLE:** Pop till you drop!

**ABSTRACT BODY:**

**Abstract Body:** A 39-year-old man was found unresponsive (GCS 7/15) and cyanotic at a gay bar. He was hemodynamically stable and breathing spontaneously (pulse oximetry 98%). An arterial bloodgas, which coloured dark brown under FiO<sub>2</sub> 100%, revealed a PaO<sub>2</sub> 127.8 mmHg, PaCO<sub>2</sub> 38.8 mmHg, pH 7.43 and methemoglobinemia (metHb) level 6.1%. We suspected a combined intoxication with gammahydroxybutyrate (altered consciousness) and poppers (methemoglobinemia). As clinical cyanosis persisted 150 mg of IV methylene blue was given. Within 45 minutes he recovered and admitted the use of GHB and a high dose of poppers. Next we described two cases of men experiencing syncope. The first was a 58-year-old man who visited a prostitute, the second a 48-year-old man who was showering. Both were hemodynamically and respiratory stable and had a GCS of 15/15. They also suffered minor facial cuts needing suturing. Both admitted the use of poppers and had a MetHb level of 33.2% and 22.9% respectively. Because of persistent cyanosis of the lips and fingernails the first was treated with IV methylene blue 210mg and recovered quickly. The second was asymptomatic and was hospitalized overnight. Poppers is the street name for volatile nitrites taken by inhalation. They induce exacerbated sensuality, euphoria and smooth muscle relaxation facilitating anal penetration, making them very popular in the gay scene. Less known however is their ability to oxidize haemoglobin to methemoglobin which is unable to bind oxygen. Methemoglobinemia higher than 20% or symptomatic should be treated. Intravenous methylene blue in a dose of 1-2mg/kg in 5-10 minutes is the recommended treatment. With our case series we would like to emphasize that in addition to well-known amphetamine derivatives other drugs are frequently used in the club circuit with less known complications. In patients with sudden cyanosis without evident cardiopulmonary cause acquired methemoglobinemia should be suspected. Definitely when there is dark-red, brownish coloured arterial blood in the presence of a normal arterial PO<sub>2</sub>.

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**ABSTRACT FINAL ID:** M-154;

**TITLE:** Incidence of Abnormal EKGs findings in Pediatric Patients Presenting with Antidepressant Overdoses

**ABSTRACT BODY:**

**Abstract Body:** Pediatric (peds) toxic ingestions though rare, can be life-threatening. Little data is available regarding treatment and EKG changes that occur in peds patients (pts) who ingest psychiatric medications (meds). Objective: To determine the incidence of "significant" EKG abnormalities in peds pts who ingest antidepressants presenting to the ED. Methods: Design: A multi-center retrospective cohort. Setting: 20 EDs in urban, suburban and rural areas from Jan. 2007 to Sept 2009. Subjects: Consecutive pts 0-17 years of age with the ICD-9 primary diagnosis of "poisoning antidepressants." A manual chart review was performed on all pts. A Qtc of > 0.45sec was considered prolonged. Significant tachycardia was considered > 130 bpm and bradycardia < 60 bpm. Pts were excluded if charts were unavailable or ingestion was not an antidepressant. Statistics: Chi square with present alpha of 0.05. Results: The database contained 79 peds pts diagnosed with "poisoning antidepressant." Charts were available for 67 pts. Three were excluded for non-antidepressant med ingestion, leaving 64 patients for evaluation. Thirty-one pts were admitted (psychiatric-8, PICU-18, peds-5), 4 transferred, 28 discharged, and 1 left AMA. Median age was 15 yrs (SD +/- 6yrs) and 35%(n=25) were suicide attempts. Females comprised 61%(n=39). Poison control was contacted in 64%. Twenty-six pts received charcoal and 2 had gastric lavage. The most common class of meds was: SSRI(n=38), antidepressant unspecified (N=14), SNRI (N=7), and TCA (n=5). EKGs were documented in 67%(n=43) of these 56%(n=24) recorded QTc. Ten percent (n=4) had documented cardiac abnormalities: prolonged Qtc in two (0.46sec and 0.5sec), one bradycardiac (prehospital), and one tachycardic (HR 160)- two were ultimately admitted. The most common med involved was SSRI's (n=2), both Qtc prolongation(p=0.71). Bradycardia occurred with antidepressant (Trazodone) and tachycardia followed SNRI ingestion. No pts died or required intubation while in ED. Conclusion: It is rare for peds pts to have significant cardiac abnormalities after antidepressant ingestion while in the ED.

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**ABSTRACT FINAL ID:** M-155;

**TITLE:** An unusual cause of burn injury: inappropriate use of psoralens

**ABSTRACT BODY:**

**Abstract Body:** The combination of psoralens and ultraviolet-A (UV-A) has been used for the treatment of vitiligo, psoriasis, atopic eczema and lichen planus. Psoralens used in medicine are available in both tablet and oil forms. Psoralens are also found in plants such as celery and figs. Therefore, phototoxic reactions with epidermal blistering have been reported in adults who use psoralens and then suntan [1, 2 and 3], and also in workers who deal with psoralen-containing plants in the sun without using gloves [4]. In this article, we present the case of a vitiligo patient who was admitted to our facility with an intense burn after the topical use of 8-methoxypsoralen (Meladinine®) solution as a sun-tanning agent.

We will also discuss the unusual nature of this type of burn and the course of phototoxic lesions and their differences from a typical sunburn.

**References**

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3. M. Turegun, S. Ozturk and N. Selmanpakoglu, An unusual cause of burn injury: unsupervised use of drugs that contain psoralens. *J. Burn Care Rehabil.* 20 (1999), pp. 50–52.
4. K. Lagey, L. Duinslaeger and A. Vanderkelen, Burns induced by plants. *Burns* 21 (1995), pp. 542–543.

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**ABSTRACT FINAL ID:** M-156;

**TITLE:** A Valproic acid poisoning case report: The patient is well, but laboratory sound the alarm.

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Valproic acid (VA) is a broad-spectrum antiepileptic drug. The most common sign and symptoms of poisoning cases are nausea and vomiting, central nervous system depression and diarrhea. Although hepatotoxicity is rare in the acute overdose setting, pancreatitis and hyperammonemia, pancytopenia, ketoacidosis, hyperammonemia and as well as pancreatitis have been reported. We report a case of 19-year-old male patient with a history of epilepsy who had taken VA orally for suicidal attempt.

Case: The patient had taken 35 gr of VA tablets about 10 hours prior to the arrival of the emergency department (ED) for suicidal attempt. He arrived in the ED with mild nausea and headache without mental status change. On admission he had a regular heart rate of 120 beats/min, blood pressure of 120/65 mmHg, temperature of 36,4 C and a respiratory rate of 18 breaths/min. He had no pathological sign on physical examination. The electrocardiogram showed a sinus tachycardia with common T wave inversion. Arterial blood gases showed pH 7.35, PaCO<sub>2</sub> 36.4 mm Hg, Pao<sub>2</sub> 70 mm Hg, base excess -4.4 mmol/L, HCO<sub>3</sub><sup>-</sup> 20.5 mmol/L, and Spo<sub>2</sub> 95 %. His blood ammonia level 177 µg/dL (reference range, 0-75 µg/dL). L-carnitine infusion was started at 150 mg/kg per day dose for 24 hours. The patient was admitted to the intensive care unit and in the intensive care unit his mental status deteriorated progressively most probably due to hyperammonemia. L-carnitine infusion was continued for 2 days and his mental status improved starting on the second day of hospitalization. Subsequent recovery was quick and he was discharged on the fourth day of hospitalization.

Conclusion: High dose VA ingestions can be presented to ED with fully conscious contrary to the expectations. These patients must be observed at least 48 hours under intensive care unit conditions and laboratory investigations must be repeated. L-Carnitine is recommended for the hyperammonemia caused by VA toxicity. However, the exact mechanism of L-carnitine is unknown. The treatment strategies should be planned accordingly to the patients' clinical and laboratory follow-up.

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**ABSTRACT FINAL ID:** M-157;

**TITLE:** Mortality-associated factors in patients with acute severe intoxication referred to the Intensive Care Unit from the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Knowledge of factors associated with mortality in patients with acute severe intoxication admitted to the Emergency Department may contribute to early detection and treatment of these patients.

OBJECTIVE: To assess mortality-related factors in patients with acute severe intoxication admitted to the ICU.

MATERIAL AND METHODS: Retrospective study of patients with acute severe intoxication referred from the Emergency Department to the ICU. Demographics, clinical symptoms, substance responsible for the intoxication, cardiorespiratory arrest, need of mechanical ventilation and vasoactive drugs, APACHE score, and mortality data were recorded.

RESULTS: Seventy-three patients admitted due to acute severe intoxication (71% men, 29% women) were studied. The mean age was  $40 \pm 13.5$  years. Causes of intoxication were drugs of abuse in 50.7% of cases, alcohol in 49.3%, and medicines in 17.8%. Mean plasma ethanol level was  $87.6 \pm 125.4$  mg/dL. Overall mortality rate was 16.4% (12 patients). There were significant differences in mortality between sex (men 23.5% vs. women 0%,  $P = 0.014$ ), heroin consumption (present 44.4% vs. absent 12.7%,  $P = 0.037$ ), cardiovascular symptoms (present 42.9% vs. absent 5.9%,  $P < 0.0001$ ), respiratory symptoms (present 36% vs. absent 6.4%,  $P = 0.002$ ), Glasgow coma score ( $\leq 8$ , 27.8% vs.  $> 9$ , 5.7%,  $P = 0.024$ ), requirement of vasoactive drugs (present 37.5% vs. absent 6.3%,  $P = 0.002$ ), and cardiopulmonary arrest (present 87.5% vs. absent 7.8%,  $P < 0.0001$ ). Differences regarding history of psychiatric disorders, intoxication due to drugs of abuse or pharmacological drugs, digestive and/or neurological symptoms, and mechanical ventilation, were not found. Survivors had an APACHE score  $< 16$ .

CONCLUSIONS: Factors associated with mortality of patients with acute severe intoxications requiring ICU admission were: male sex, consumption of heroin, presence of cardiovascular and/or respiratory symptoms, Glasgow coma score  $\leq 8$ , need of vasoactive drugs, and presence of cardiorespiratory arrest.

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**ABSTRACT FINAL ID:** M-158;

**TITLE:** Toxic exposure surveillance: acute intoxications due to chemical products attended in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Emergency Departments of hospitals may and should play an essential role in relation to toxic surveillance tasks.

OBJECTIVE: To evaluate epidemiological and toxicological characteristics of exposures to chemicals products requiring a consultation to the Emergency Department.

METHODS: Retrospective study of all patients with intoxication due to chemical products attended in the Emergency Department between 2007 and 2010.

RESULTS: We studied a total of 149 patients with intoxication admitted during the study period (49% men), with a mean age of  $40.7 \pm 15.3$  years. Intoxications occurred at home in 56.4% of cases, in the workplace in 28.9%, and suicidal attempt in 7.4%. The type of toxic was gases in 53.7% of cases (toxic 50%, irritants 50%), caustic substances in 19.5%, solvents in 10.1%, detergents in 10.1%, pesticides in 2%, and other toxics in 4.6%. In relation to the main toxic agent, carbon monoxide (CO) was recorded in 30 cases, bleach in 11, ammonia in 4, hydrogen chloride in 3, sulphuric acid in 1, sodium hydroxide in 1, and chloride in 6. The most frequent route was respiratory in 60.4% of cases, digestive in 38.9%, and oculocutaneous in 4%. A total of 32.9% of cases were asymptomatic. Symptomatic treatment was indicated in 122 cases. Specific therapeutic measures included antidotes in 26.8% (high concentration oxygen in 38 cases, hydroxycobalamine in 23, ethanol in 1, and atropine in 1), and oculocutaneous decontamination in 2%. Digestive decontamination was not performed. One patient with hydrogen chloride poisoning with suicidal purposes died (mortality rate 2%).

**CONCLUSIONS:**

- In the present series of intoxications due to chemicals, inhalation of gases, particularly CO was the most frequent.
- Hydroxycobalamine was used as an antidote in 15.4% of cases.
- Mortality was not negligible because deaths accounted for 2% of the total series and almost 10% of intoxications due to suicidal attempt.

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**ABSTRACT FINAL ID:** M-159;

**TITLE:** Poisoning with weaver fish Trachinus Draco:A case report

**ABSTRACT BODY:**

**Abstract Body:** A 47-year-old fisherman was stung in his right hand by a Great Weaver fish (Trachinus dracho) . He was admitted to the Emergency Department of Kartal Education and Research Hospital for symptoms, such as: a strong pain, swelling and reddening of the right hand , that had appeared after contact with an unidentified fish when he had been enjoying a bath in the Marmara Sea. One hour later severe pain, oedema of the hand, fever, vomiting and syncope occurred. In the additional examinations, slight abnormalities were detected only in the results of blood agglutination test. The patient was discharged from the hospital 6 hours later in good condition.

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**ABSTRACT FINAL ID:** M-16;

**TITLE:** CAT Is the addition of scopolaminebutyl to the regular treatment effective in treating pain in renal colic?

**ABSTRACT BODY:**

**Abstract Body:** Background

Renal colic is a common presentation in the emergency department. Previous research mainly focused on whether there was a difference in successively relieving pain by several classes of drugs. This resulted in the general recommendation of using a combination of non steroidal anti-inflammatory drugs (NSAID's) and titrated opioids when treating renal colic, which gives a faster and better reduction in pain when compared to antimuscarinics. In daily practice scopolaminebutyl is still a commonly used drug in treating renal colic. The aim of this CAT is not to compare the effect of NSAID's to antimuscarinics, but to investigate if there is any evidence that scopolaminebutyl in addition to NSAID's results in better pain reduction in renal colic.

**Methods**

A literature search was performed in medical databases, Cochrane, Medline, Pubmed, National Library of Medicine. Search terms used were abdominal pain, renal colic, buscopan and butylscopolamine. Limits were set to English and Dutch language, research in humans.

**Results**

The search resulted in 95 hits, of which 3 articles were considered relevant. A critical appraisal of the literature was performed using the Grade system. The first study was a literature study which concluded there was no evidence available for buscopan relieving pain. The second study only described an in vivo study of buscopan on the ureteral wall, but no research was done on the experienced pain. The third study was a RCT on patients in the ED with renal colic comparing buscopan to placebo with primary endpoint need for opioids. No difference in need for opioids was seen when comparing the buscopan group to the placebo group. The Grade system was used to analyze the literature, which resulted in level of evidence 1B, level of recommendation B.

**Conclusion**

There is no evidence that scopolaminebutyl in addition to the regular treatment of renal colic gives more reduction in pain and need for opioids.

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**ABSTRACT FINAL ID:** M-160;

**TITLE:** MORPHINE ABUSE with HYPOCALCEMIA WHY???

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION:

Opioids are prescribed widely, often in concert with other analgesics, including nonsteroidal anti-inflammatory drugs (NSAIDs). Given all toxicologic presentations, pure opioid ingestions are generally a small proportion of ED overdose cases.

**CASE:**

40 year old male patient attended Emergency Medicine because of a drug abuse. He had taken 45 pieces of morphine sulfate AL 30 retard six hours ago. Vitality symptoms were stable but arterial blood gases revealed metabolic acidosis. Patient showed symptoms of confusion and euphoria. He was detected to have pinpoint bilateral pupil but no motor deficit. Laboratory findings were normal except hypocalcemia (Ca:7.5 mg/dl,6.9mg/dl , Albumin:5.2g/dl). He did not have hypocalcemia signs on his ECG.

**DISCUSSION:**

Opioid toxicity should be suspected when the clinical triad of CNS depression, respiratory depression and pupillary miosis are present. Drowsiness, conjunctival injection and euphoria are seen frequently. Other important presenting signs are: Ventricular arrhythmias, altered mental status and seizure. At the same time hypocalcemia presents with CNS signs and symptoms like confusion and hallucinations. In our case, the neurological symptoms primarily revealing a morphine toxicity can also be used to predict that severe hypocalcemia could have worsened the situation. In our case we excluded the other the causes of hypocalcemia. In current literature, the causes of the hypocalcemia do not include morphine abuse. The decrease in calcium levels after administering calcium replacement reveals that this situation may be related with the drug. In the latest literature it has been shown that sulphates may cause hypocalcemia. Many morphine drugs include sulphate components. Inorganic sulfate is a divalent anion that forms a soluble ion-pair complex with serum calcium.

**RESULT:**

Patients who attend the Emergency Departments with intake of morphine drugs for suicide, attention should be paid to hypocalcemia as well as other typical symptoms and findings.

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**ABSTRACT FINAL ID:** M-161;

**TITLE:** drinking with charlie

**ABSTRACT BODY:**

**Abstract Body:** Cocaine and alcohol use is a fairly common recreational activity in Ireland. Cocaine deaths are usually sporadic and multiple deaths at one location are uncommon. We present the case of oral ingestion of cocaine and alcohol at a single house party resulting in the deaths of two people and the admission of a third patient to our intensive care unit. Oral cocaine in conjunction with alcohol causes the production of a toxic metabolite, Cocaethylene to a greater extent than when taken via the nasal or intravenous route. Cocaethylene acts directly on cardiac myocytes to cause a negative inotropic effect.

**AUTHORS/INSTITUTIONS:** E. Fogarty, B. McCann, Emergency Medicine, Waterford Regional Hospital, Waterford, IRELAND;

**ABSTRACT FINAL ID:** M-162;

**TITLE:** Early detection of carbon monoxide poisoning in Tartu Ambulance Service

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION

Carbon monoxide (CO) toxicity is a significant but often unrecognised health threat. CO is called silent killer - it is difficult to detect and can thus be dangerous to ambulance team. To protect the teams a CO detector ToxiPro was introduced in Tartu Ambulance Service in Nov 2010 after two ambulance teams suffered CO poisoning needing hyperbaric oxygen therapy (HBO). Tartu Ambulance Service has 17 medical teams and covers both rural and urban area of 9000 km<sup>2</sup> with population of 220 000.

**AIM**

Aim of the study was to investigate the usefulness of the CO-detector for protecting the ambulance team and diagnosing CO poisoning.

**METHODS**

A prospective study of all visits of Tartu Ambulance Service from 15.11.2010 to 30.04.2011. Every team had CO-detector and in case it gave alarm the CO concentration in air (COc) was recorded. The results were analysed and compared to the data of previous years. If the patient was hospitalised to the emergency department (ED) of Tartu University Hospital, we investigated the correlation of the COc with carboxyhemoglobin levels in blood (COHb). The protective effect was estimated by the number of CO poisonings among ambulance team members.

**RESULTS**

CO toxicity was diagnosed in 162 cases during 24 weeks study period, which is critically more than during the previous years. Frequent reason for calling the ambulance was generally sick patient with headache and nausea. 2 patients (pts) were dead, 142 hospitalised, 103 were brought to ED in Tartu. No correlation was found between COc and COHb, but in 75% of cases where detector measured COc over 35 ppm, pts had the ratio of COHb to hemoglobin more than 10% and with over 100 ppm this ratio was over 10% in 93% of cases. 30 pts needed HBO, others were treated with oxygen. 19 pts were admitted to hospital, one died in ED. There were no CO poisonings among ambulance staff after implementation of CO-detectors in Tartu Ambulance Service.

**CONCLUSION**

Early detection of CO poisoning is possible and necessary in ambulance settings. CO detection in room air provides good protection for ambulance team and helps to recognize a CO poisoned patient.

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**ABSTRACT FINAL ID:** M-163;

**TITLE:** Pesticide poisoning in the rural area of Rodopi-Greece

**ABSTRACT BODY:**

**Abstract Body:** Introduction

Pesticide poisoning constitutes a problem that often occurs in the daily medical practice and mainly concerns the rural areas of Greece. The purpose of this project is to mention the epidemic characteristics and our observations on unintentional pesticide and herbicide poisonings in the prefecture of Rodopi, Greece.

**Materials and Methods**

In our retrospective study that refers to a period of two (2) years (January 2006-December 2007), 152 patients suffering from pesticide poisoning were offered medical treatment in the pathologic ward and the Intensive Care Unit of the General Hospital of Komotini. 119 (78.30%) of them were patients who unintentionally suffered pesticide poisoning. The rest 20 (13.15%) were poisoned with pharmaceutical substances of domestic use. There were also 13 (8.55%) cases of attempted suicide with "intentional" intake of an overdose of anti-depressants that were exempted from our study.

**Results**

14 out of the 119 patients (11.76%) were transferred to hospital in a state of a coma (GCS<8) and were treated in the Intensive Care Unit (ICU) and underwent blood refinery. There were two (2) deaths (2/119 or 1.68%). The average age of our patients was 37 years (14-89). The proportion of men/women was 2.4/1 (84/35) and the poisonings took place at the beginning of the summer.

**Conclusions**

Unintentional pesticide poisonings are frequent in our area. They concern people of low educational level, mainly men at a productive age. The time spent from the intake of the pesticide to their transfer to hospital plays an important role in the successful treatment of such cases. Moreover, for a positive outcome in these severe cases it is essential that these patients are treated in Intensive Care Units.

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**ABSTRACT FINAL ID:** M-164;

**TITLE:** Carbon Monoxide levels Among Healthy volunteers of Hookah Smokers

**ABSTRACT BODY:**

**Abstract Body:** Hookah Smoking very common health related habits as well as it's an ER issue!. Our The Clinical Concern is Carbon Monoxide "CO" intoxication .it is now considered a global public health threat. There has been little research on Hookah at the laboratory level

**Objectives**

To document the average of CO level and intoxication in a healthy individual during a normal regular Hookah Smoking session

**Method :**

An observational study. After signing an informed consent for participation, sample of 17 healthy volunteers have been recruited from the local community coffeeshouse that provide Hookah in their menu. Non invasively, Handheld CO detector device has been used to measure the level continuously for 2 hours period of active smoking ( live-time measurement )

**Results**

From April 2008 till October 2008,data have been collected Ages range from 23 – 35 y/o (healthy) All individual were male ( 100%) 15 smoked Hookah

We noticed that symptoms (Headache, Nausea ) were associated with relatively higher levels (more than 14 )

**Conclusion :**

The Study clearly shows significant hazard from Hookah smoking for possible CO intoxication. farther studies Require for toxicological and pathological investigation of this type of smoking.

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**ABSTRACT FINAL ID:** M-165;

**TITLE:** Developments in the Management of Cardiotoxic Poisoning

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Calcium channel blockers (CCB) were introduced in the United States in 1981. Indications for use of these drugs include angina, hypertension, arrhythmia and migraine prophylaxis. However, calcium channel blocker overdoses have emerged as one of the most lethal drug ingestions and are commonly implicated in fatal poisonings.

Common cardiovascular effects resulting from calcium antagonists include peripheral vasodilation, negative chronotropy, negative inotropy, negative dromotropy. The two classes of calcium antagonists include dihydropyridines eg. amlodipine, lercanidipine, nifedipine and phenylalkylamines such as verapamil.

Discussion: Antidotal therapies for calcium antagonist overdose include calcium replacement, glucagon, atropine, inotropic support (adrenaline, noradrenaline or isoprenaline), and ventricular pacing. However, these treatments may be ineffective in cases of severe toxicity. Intralipid emulsion therapy (ILE) has been suggested for use in CCB overdose. Several non-randomised observational case series show a large positive treatment effect. ILE therapy has been introduced as a recognised therapy for the management of local anaesthetic toxicity. Postulated mechanism of actions of ILE include: an expanded plasma lipid phase, thus reducing the free drug levels; overcoming of the inhibition of acyl carnitine transferase used to transport free fatty acids into cardiac myocytes and a direct positive inotropic effect on myocardial cells. Current recommendations advise the use of an initial bolus of Intralipid 20% 1.5ml kg<sup>-1</sup> followed by an infusion of 0.25 ml<sup>-1</sup> kg<sup>-1</sup>min<sup>-1</sup>.

Conclusion: Calcium antagonists are potentially lethal when taken in overdose. Standard therapies are often limited. ILE is a novel therapeutic antidote that has shown promise in the treatment of CCBs.

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**ABSTRACT FINAL ID:** M-17;

**TITLE:** An unusual esophageal foreign body aspiration: a total denture.

**ABSTRACT BODY:**

**Abstract Body:** Background:Esophageal foreign bodies as they commonly seen in children and when diagnosed late,their complications can be serious and life threatening.This is the first case we detected by literature review of an esophagus obstruction in a patient caused by ingested fixed total denture.

Case:A 67 year old male patient was brought to the ED by paramedics after the hostel staff reported that the accidental ingestion of a total denture while having diner.Physical examination revealed that he had a dysphagia,discomfort,pain in the throat,coughing, hypersalivation,vomiting.It is learned he was a mentally retarded.A nasopharyngeal airway was inserted immediately in the ED to secure the airway of the patient and to protect him from aspiration.Both anteroposterior and lateral radiographs of the neck showed that the total denture had apparently been dislodged and appeared to be in the upper one third of esophagus(Figure1,2.The denture was then removed via rigid esophagoscopy.No complication was seen after the procedure and he was discharged the next day from the ED.

Conclusion:Emergency physicians should maintain a high index of suspicion in the presence of dysphagia discomfort or pain in the throat or excessive production of saliva.Rigid esophagoscopy is quite often satisfactory in removing impacted dentures from the esophagus.

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**ABSTRACT FINAL ID:** M-18;

**TITLE:** Intramural duodenal hematoma secondary to chronic pancreatitis. An unusual indication of urgent duodenopancreatectomy.

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Cases of Intramural duodenal hematoma secondary to chronic pancreatitis are rare and the few ones which are being reported usually undergo a conservative treatment.

PATIENTS AND METHODS: A 45-year-old man presented to the emergency department with abdominal pain, anorexia, vomiting and loss of 10 kg weight. Computed tomography (CT) scan revealed a mass located by the ampulla of Vater and causing a dilatation of the bile duct and the pancreatic duct. On the fourth day of hospital stay, the patient underwent a high digestive endoscopy and biopsy specimens of the mucosa are taken for anatomical pathology. The patient experienced a hemodynamic instability, he had to be to the intensive care unit. A new CT scan revealed active bleeding from the duodenal injury, on the light and at peritoneum. Hence, urgent operation was agreed. By means of a subcostal incision on the right side, hemoperitoneum, tumor affecting the duodenum and pancreas with high inflammation, perforation of the third part of the duodenum and gallbladder distention. Whipple procedure is carried out including Roux-en-Y bypass and cholecystectomy.

RESULTS: The patient is brought back to the intensive care unit once he has reached hemodynamic stability. the patient undergoes a satisfactory recovery to be discharged form hospital on the 21st day after the surgery.

The pathology results: organized dissecting hematoma affecting the duodenum muscular tissue, which spreads over the duodenal mucosa producing pancreatic necrosis and ulceration and chronic pancreatitis. Biopsy specimens review do not bring any clue of malignant tumor.

DISCUSSION: Intramural haemorrhage with perforation and hemoperitoneum secondary is exceptional and, in our case, it is likely to have been originated due to pneumatic dilatation and biopsy works while endoscopy operations. In this case, the chirurgical options were two. On one hand, the biliary drainage and suture of the perforation or DPC. The availability of a well trained team and the suspicion of a duodenal neoplastic injury were determinant for choosing the technique.

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**ABSTRACT FINAL ID:** M-19;

**TITLE:** Closed abdominal trauma with pancreatic injury

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Traumatic lesions of the pancreas are rare due to the retroperitoneal location of this body. Represent between 2-4% of severe abdominal trauma. We report a case of blunt abdominal trauma with pancreatic injury that required resection.

Clinical case: Male, 19 years old who was admitted to ER due to blunt abdominal trauma due to entrapment between the metal structures of a crane. Clinical: severe abdominal pain with guarding on examination. Normal amylase in plasma and urin. CT: pancreatic laceration in body and tail with peripancreatic retroperitoneal hematoma. Decreased uptake in the middle third of left kidney (contusion). No free fluid in the pelvis.

The patient was operated on urgently finding a pancreatic parenchyma disrrupción obliquely from body to neck. Channel is not achieved for pancreatography pancreatic duct, and given the size of the lesion, we decided to make corpora-caudal pancreatectomy with splenic preservation. Postoperative nosocomial pneumonia right baseline resolved with medical treatment and spleen decreased uptake areas but do not have clinical significance and analytical. High at 20 days.

Discussion: Due to its retroperitoneal location, the condition of pancreatic trauma is uncommon and may go unnoticed at first in the evaluation of the patient. The clinical and laboratory data are often nonspecific and therefore requires a high index of suspicion. Imaging techniques such as ultrasound or CT are useful diagnostic methods for evaluating these patients. Once the presence of pancreatic injury, it is essential to define the integrity of the main pancreatic duct, and that their condition is a change in the surgical treatment of these lesions. The vast majority of pancreatic injuries can be treated with drainage, with or without pancreatorrhaphy. If you are involved the pancreatic duct, resection will require more complex techniques. They should also take into account the possible complications of pancreatic trauma and identify in each case the steps to follow.

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**ABSTRACT FINAL ID:** M-20;

**TITLE:** Abdominal pain in pregnant women.Can it be HELLP?

**ABSTRACT BODY:**

**Abstract Body:** Background:HELLP syndrome is a severe variant of preeclampsia with bad prognosis.The laboratory findings of the syndrome are: haemolysis, elevated liver enzymes, low platelet count.The importance of it is that the morbidity and mortality rates associated with the syndrome are significantly higher in mother and baby as well.The prevalence is 0,17-0,85% of pregnant women develop HELLP syndrome, and 20% of severe preeclampsia is HELLP syndrome.

Objective:The aim of our study was to evaluate the number of patients with HELLP syndrome among pregnant women presented with abdominal pain in the emergency department (ED).Methods: Retrospective review of medical records of pregnant women presented with abdominal pain in our ED between 01.01.2007-31.12.2010. Laboratory parameters and vital signs were assessed in every case. In addition, we performed abdominal ultrasound and urine tests if abdominal pain, hypertension or preeclampsia in past history was revealed.Results: Number of pregnant women presented in our ED between 2007 and 2010 was 294 and 176 patient had abdominal symptoms.Causes of abdominal pain which were not related with pregnancy: acut gastroenteritis (79) appendicitis (7), nephrolythiasis (8), urinary tract infection (35), cholelythiasis and pancratitis (9), gastrooesophagial reflux (17), gastric ulcer (3). Causes which were related with pregnancy: hyperemesis gravidarum (12) and HELLP syndrome (6 cases).Conclusion: Pregnant women with HELLP syndrome are presented to hospital mainly with epigastrial or right upper quadrant pain, or vomiting.The combination of a characteristic symptom and one or more conditions typical for preeclampsia, or deteriorated laboratory parameters of HELLP syndrome indicates the expedite exclusion of abdominal diseases which are not related to pregnancy. Besides, signs of probable disease progression have to be checked to terminate pregnancy in time if it is needed.

Qualified and experienced ED physicians are essential for differential diagnosis.

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**ABSTRACT FINAL ID:** M-21;

**TITLE:** A Beverage Bottle In The Rectum: A Case Report

**ABSTRACT BODY:**

**Abstract Body:** Background

Foreign body within the rectum occurs infrequently. Majority of objects are introduced through anus; however, sometimes a foreign body is swallowed, passes through the gastrointestinal tract and is held up in rectum. Apart from sexual stimulation, they have been introduced into the rectum during sexual assaults, accidentally, to seek attention and to alleviate constipation. Males are commonly affected. The age group is 16-80 years. We describe a case in which a radiolucent foreign body was seen on plain radiography.

**Case**

A 51-year-old male presented with the history of introducing a beverage bottle in the rectum and bleeding per rectum for one day. He gave history of similar attempts of using objects for alleviate constipation in past. Vital signs were normal. His abdomen was soft and not tender on palpation. On inspection of his anus external piles were seen but no foreign body was evident on digital rectal examination. Foreign body was not palpable per abdomen. X-ray pelvis showed the bottle in lower abdomen and pelvis (figure1).

**Discussion**

There have been many publications in the literature on rectal foreign bodies. The foreign bodies commonly reported were plastic or glass bottles, cucumbers, carrots, wooden, or rubber objects. Other objects reported are bulb, tube light, axe handle, broomstick, vibrators, etc. The object length varied between 6 and 15 cm, and larger objects were more prone for complications. Abdominal and rectal pains, bleeding per rectum are the common presenting symptoms.

**Conclusion**

Foreign bodies in rectum and sigmoid colon is increasingly being seen recently. X-ray pelvis and X-ray abdomen help in locating and localizing the foreign body and also rule out intestinal perforation.

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**ABSTRACT FINAL ID:** M-22;

**TITLE:** A Case of Budd Chiari Syndrome in Postpartum Period

**ABSTRACT BODY:**

**Abstract Body:** Budd Chiari Syndrome (BCS) is rare but fatal disease characterised by dysfunction which is associated with hepatic venous obstruction and portal hypertension signs but regardless of constructive pericarditis. BCS usually effects adolescents and is associated with prescipitations such as hematologic diseases, oral contraceptives, pregnancy and cancer. We confirmed that according to literature Budd Chiari Syndrom occured in 3. and 4. months after delivery. We have presented a BCS case in pospartum 40th day. A 20 year old female patient applied to emergency department with diarrhea , vomitting, nausea. The previous 40. day the spontan vaginal delivery happened and there were no complainings except the diarrhea which had been continuing since the 4. month of pregnancy, at the same day there was also 4-5 times yellow and green colored vomiting. In physical examination, she was considered as being mainly healthy, pulse rate was, 140/min, breathe rate was 24/min. Abdominal distantion positive , epigastric region susceptibility positive and acute abdominal signs were negative. Liver approximately 5 cm from subcostal palpable and hyperactive intestinal sound was detected. Other systemic results were normal. The analysis of free fluid which detected by the bedside ultrasound was transuda. In abdominal computerized tomography with intravenous contrast, on hepatic vein branches from porta hepatis level to 2 cm distal of right atrium, a lesion which was consistent with thrombus was detected. The patient was hospitalized to intensive care unit of internal medicine department with diagnose of Budd Chiari Syndrome.

In patients who were admitted to emergency department with non-spesific symptoms such as nausea and vomitting ,in addition to common diseases which have high possibility , fatal diseases such as Budd Chiari must be thought. Especially , in patients who have atypical symptoms in postpartum period regardless of hematologic reasons before diagnosis, thromboembolic events must be excluded.

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**ABSTRACT FINAL ID:** M-23;

**TITLE:** A case of acute abdominal pain with several difficulties in diagnosis

**ABSTRACT BODY:**

**Abstract Body:** Introduction

Familial Mediterranean fever (FMF) is an autosomal recessive disease characterized by recurrent inflammatory febrile attacks of serosal and synovial membranes. Peritonitis and fever are seen in almost 90% of patients, and the patient is normal between the acute attacks. Testicular germ cell cancer is the most common solid malignancy in the age group 15–35. We report a case presented to the emergency department with abdominal pain and first diagnosed as FMF wrongly and then diagnosed as testicular malignancy.

Case report

A 19 years old man presented to the ED with acute abdominal pain and acute abdomen examination findings. The patient had similar abdominal pain attacks in the past and appendectomy was done in one of these attacks. His mother and brother were diagnosed as FMF and receiving therapy. Test results revealed leukocytosis and elevated fibrinogen levels (574mg/dl, normal range: 180-350). After analgesic treatment, the abdominal pain and abnormal physical examination findings were resolved. The patient prescribed 'colchicum' and discharged from the ED with a scheduled follow-up visit appointment at gastroenterology clinic. The next day, patient returned to the ED with recurrent abdominal pain and an abdominal ultrasonography examination were ordered in the ED and reported as 'normal' by the radiologist. The CT results revealed a 10x8.5 cm retroperitoneal mass. Testis ultrasound was done and reported as 'normal' by radiologist. The patient was hospitalized to the general surgery ward for further evaluation. The needle aspiration biopsy results revealed as 'germ cell tumor metastasis.

Conclusion

In conclusion, differential diagnosis of acute abdominal pain can be challenging. Especially in patients with persistent and ongoing pain, ordering further imaging studies can prevent to find out treatable causes of diseases earlier in the ED.

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**ABSTRACT FINAL ID:** M-24;

**TITLE:** Comparison of Alvarado Score with Inflammatory Markers and Ultrasonography in the Diagnosis of Acute Appendicitis

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Acute appendicitis (AA) is one of the most common acute surgical conditions of the abdomen. Nevertheless, the indications for appendectomy are associated with a high preoperative rate of false diagnoses. Purpose of this study is accuracy assesment of laboratory tests like indicator of inflammation [C-Reactive Protein (CRP), Procalcitonin (PRC), Erythrocyte Sedimentation Rate (ESR)], abdominal ultrasound imaging (US) and Alvarado score (AS) and reducing rate of negative appendectomy.

Material Method: This study included 291 consecutive patients. Patients are seperated as operation group (n=184) and non-operation group (n=107).

We assessed complete blood count, ESR, PRC levels; performed US and calculated AS for all patients.

Histopathological evaluation was based on the diagnosis of AA.

Clinical parameters were compared in terms of sensitivity, specificity, accuracy, positive predictive value and negative predictive value on making the diagnosis of AA.

Results: The mean age of patients was 32.2 years. Primary symptom was nausea-vomiting (%47.8) and primary examination finding was rebound sign (%66). In operation group; clinical predictive factors were AS  $\geq 7$ , AA signs on US, neutrophilia and leukocytosis ( $p < 0.05$ ). Neutrophilia and leukocytosis was highest accuracy rate among these factors ( $p < 0.001$ ).

Inflammation parameters were not predictive for histopathological results in operation group however; higher CRP and PRC levels were significant effect for complicated AA cases. US was predictive factor for necessating appendectomy; although multifactorial regression analyses of AA was showed that wasn't significant as predictive factor in non-operation group.

Conclusion: There isn't any superiority among AS and/or US for diagnosis of AA.

The most reliable evidence in establashing the diagnosis of AA is primarily neutrophilia and leukocytosis in recent findings.

Other results of this study are inflamatuar parameters aren't superior to other parameters for AA diagnosis and diagnostic value of CRP and PRC levels are difference between complicated and uncomplicated cases.

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**ABSTRACT FINAL ID:** M-25;

**TITLE:** Severe presentation of purple bag syndrome

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Purple urine bag syndrome (PUBS) is a rare phenomenon in which urine bags turn purple. It is described in constipated and chronically catheterized elderly females, and associated with bacterial urinary tract infections (UTI) that produce sulphatase/phosphatase enzymes and alkaline urine. The etiology is believed to be due to the production of indigo and indirubin by these bacteria. It seems to be a benign process. This case report is different to the vast majority of patients with PUBS in the severity of the patient presentation. Case presentation: A 73 y/o female was brought to Emergency Department (ED) due to decreased activity and weakness. The patient's medical history included hypertension, diabetes and chronic urinary catheterization with recurrent UTI. Urine catheter was replaced one week previous to admission and was purple upon ED arrival. Patient's urine microscopy shows leukocytes, hematuria and bacteriuria consistent with urinary tract infection. The patient's urine culture was positive for *E. coli* and *Klebsiella pneumoniae*. Patient was treated with intravenous (IV) fluids, inotropics and antibiotics. After 3 days of treatment the patient's urine cleared entirely. The patient remained hospitalized for 21 days and then discharged home successfully. Conclusion: Although, this syndrome is well described in the medical literature as benign process, this case underscores that it deserves attention and prompt management. In most cases changing the bag is enough to treat the process, but in this case the patient received sepsis directed treatment.

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**ABSTRACT FINAL ID:** M-26;

**TITLE:** Imperforate Hymen: an Unanticipated Cause of Pediatric Abdominal Pain in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Imperforate hymen is an uncommon presentation of abdominal pain in the pediatric population. The incidence of imperforate hymen is 1:2,000 among newborn females. This case report is different to the vast majority of cases reported with imperforate hymen because of the quantity of hematocolpometra and size of uterus distention upon presentation. Different to this case, most cases reported in literature drain less than 1,000 ml of hematocolpometra. Case presentation: We present a case of an eleven years old female with abdominal pain for four days, associated to amenorrhea, a palpable abdominal non-pulsatile mass that extended above the umbilicus and increased urinary frequency. Upon trans-abdominal ultrasound evaluation, an enormous mass was seen (23.54 cm X 12.18 cm X 9.54 cm). An abdomino-pelvic CT scan confirmed this finding. When asked to the patient's mother about her other daughter's menarche, an age of 10 years was revealed. Pregnancy test was negative. During genital examination a bulging imperforate hymen occluding the vagina was seen. The patient was consulted to Gynecology service. She was taken to the operating room where a vertical hymenotomy was performed. A 2,500 ml chocolate-colored menstrual blood was drained from the vagina following the hymenotomy. Conclusion: Although many common underlying diseases and disorders are associated to pediatric abdominal pain, it is very important to the emergency physician to have imperforated hymen as part of the differential diagnosis as a rare cause of abdominal pediatric pain. It is of utmost importance to do a complete genital examination, a meticulous menstrual history of other female family members, and a high clinical suspicion in order to facilitate early detection.

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**ABSTRACT FINAL ID:** M-27;

**TITLE:** Acute Visible Haematuria in the Emergency Department. Should we worry?

**ABSTRACT BODY:**

**Abstract Body: Introduction** Visible haematuria (VH) is a common presentation to the Emergency Department (ED). Previous research showed that 22% of patients referred to urology outpatients with VH have a malignancy. We wanted to determine the malignancy rates of patients presenting to ED in a district hospital. We also postulated that the degree of bleeding, assessed by the presence of clots or clot retention, is associated with a higher incidence of malignancy. **Method** This was a retrospective study. All patients presenting to ED with VH from August 2009 to January 2010 were included in this study. Data was collected from patients' hospital notes and their GPs. Patients were followed-up for a year. **Results** Our study population has 109 patients (male=87, female=22) with a mean age of 64.1 years (SD=23.6). Twenty six patients (23.8%) had haematuria with clots and 12 (11.0%) developed clot retention. Thirty five (32.1%) patients had a malignant diagnosis. Transitional cell carcinoma was the most common cancer found, in 17 patients (15.5%), while prostate cancer was equally prominent with 14 cases (12.8%). The male sex is a known risk factor for developing urological malignancies and all but one of our patients that developed cancer is male. Although most malignancies are found in patients aged 70-80s, the two youngest patients with cancer are in their 30s. The mean age of our patients with cancer is 71.5 years (SD=15.9). The incidence of malignancy increases in patients who have clots (71.4%) and who develop clot retention (33.3%). The presence of any clots compared to haematuria alone has a higher incidence of malignancy,  $p=0.008$  (Fisher's exact test). **Conclusion** A third of patients presenting to ED with visible haematuria have a urological cancer, significantly higher than patients who present to outpatients. This provides an excellent opportunity to screen for cancer. All patients must be referred to a urologist urgently regardless of severity of haematuria, age or sex. We need to ensure that no one is lost to follow as early diagnosis significantly improves outcome. We should also consider screening for prostate cancer as part of our haematuria screen.

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**ABSTRACT FINAL ID:** M-28;

**TITLE:** Does Testing Positive For Gonorrhea Or Chlamydia In First Trimester Pregnancy Affect Fetal Outcomes?

**ABSTRACT BODY:**

**Abstract Body: Background:** Naval Medical Center Portsmouth is a tertiary care military teaching hospital with approximately 90,000 emergency department (ED) visits per year. Symptomatic first trimester pregnancy make up 2% of ED visits yearly.

**<p>Study Objective:** The purpose of this study was to compare fetal outcomes of first trimester women found to have a positive test for *Neisseria gonorrhoeae* or *Chlamydia trachomatis* (GC/CT) versus those who were negative following emergency department presentation for abdominal pain or vaginal bleeding.

**<p>Methods:** A retrospective chart review of consecutive emergency department records from December 2005 to August 2006 identified pregnant women presenting for evaluation of vaginal bleeding or abdomino-pelvic pain in their first trimester (estimated gestation age  $\leq 12$  weeks by last menstrual period) who were also tested for GC/CT during their visit. Standard GC/CT unisex endocervical swab was used for testing. We excluded patients with multiple presentations during the same pregnancy. Demographic data, results of GC/CT testing, and fetal outcomes were documented.

**<p>Results:** A total of 1144 first trimester pregnant women presented for evaluation in the ED. 651 met inclusion criteria with 85 lost to follow up. The final group had 566 patients, 29 of whom tested positive for GC or CT (incidence 5.1%). 17 of these women delivered (58.6%; 95% CI: 40.7-76.6%) and 12 had a spontaneous abortion (SAB) (41.4%; 95% CI: 23.5-59.3%). None of the 29 patients with a positive GC/CT test had an ectopic pregnancy. Of those with a negative test for GC/CT test, 340 delivered to term (63.5%; 95% CI: 59.2-67.4%), 23 had an ectopic pregnancy (4.5%; 95% CI: 28.4-36.4%), and 174 experienced a SAB (32%; 95% CI: 28.4-36.4%).

**<p>Conclusion:** In this small study, the GC/CT incidence was 5.1%. SAB occurred in 41.4% of women who tested positive for GC/CT in the first trimester. This was compared to an overall fetal loss of 36.5% of women with a negative test. GC/CT infections increase the rate of fetal loss by an odds ratio of 1.22; (95% CI: 0.57-2.60); however, these results were not statistically significant.

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**ABSTRACT FINAL ID:** M-29;

**TITLE:** A DIFFERENT CAUSE OF DEATH: CHICKPEA

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION:

Sigmoid volvulus (SV) is the most common cause of obstruction in large intestine after carcinoma, and diverticulitis. We present a case of a 47 years old woman who had hiatal hernia and suffered a fatal ending sigmoid volvulus due to excess roasted chickpea consumption.

**CASE:**

47 years old female patient with a history of schizophrenia and a story of general poor health after too much roasted chickpea consumption, had been admitted to emergency department, under CPR performed by EMS personnel. The patient's general condition was poor, GCS E1 M1 and intubated. She was hypotensive and had abdominal distension. Chest XR demonstrated densities which belonged to stomach, behind heart image and abdominal XR demonstrated air fluid levels. In thoracoabdominal CT, ileus, sigmoid volvulus and hiatal hernia causing cardiac compression were revealed(Figure 1). After CT imaging the patient had a cardiac arrest and after 25 minutes CPR the patient was considered as exitus.

**DISCUSSION:**

Although it's not defined previously in the literature, in our case we believe SV was caused by the occlusive effects due to the excessive amount of chickpea eaten. Increased intraabdominal pressure due to development of SV and megacolon augmented hiatal hernia which, resulted with the total herniation of stomach into the chest cavity and cardiac compression causing patient's death. The conventional X-ray view of SV is the coffee bean sign. Abdominal CT should be performed in patients who has nonspecific dilated intestinal loops in abdominal Xray. In our case, abdominal angio CT images revealed, tortionated mesenteric vessels, surrounded with dilated intestines, which is called as whirl sign. SV must be diagnosed and treated immediately. Urgent decompression and elective sigmoid resection surgery performed together reduces mortality significantly. This is the only case in the literature, that SV caused by excess roasted chickpea consumption which was the reason of death.

**CONCLUSION:**

Too much roasted chickpea consumption can lead to SV due to occlusive affects in gastrointestinal system, SV can result with death in the presence of hiatal hernia, due to compression of cardiac structures.

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**ABSTRACT FINAL ID:** M-30;

**TITLE:** Abdominal trauma in a rural Hellenic hospital

**ABSTRACT BODY:**

**Abstract Body:** Abdominal trauma is divided into blunt and penetrating types. Penetrating abdominal trauma is usually diagnosed based on clinical signs and is frequent in urban settings. Blunt abdominal trauma is more likely to be delayed or altogether missed because clinical signs are less obvious. Blunt abdominal trauma is frequent in rural areas. Aim of this study was to describe the management and outcome of case with abdominal trauma admitted to a rural district hospital during a 7 year period (2002,2003,2004,2005,2006,2007) . A retrospective analysis was performed in all of the case notes of consecutive cases of abdominal trauma 8 individuals ( 8 men -100%, median age 31 years ) presented to the outpatient department and 4 were admitted ( 50 % ) . The average length of stay was 15 days. The major parts of the burns were caused by accidents Accurate support for abdominal trauma patients appears to be necessary during the hospital permanence.

**AUTHORS/INSTITUTIONS:** N. Syrmos, P. Isaakidis, V. Tsirpanlis, S. Tzinis, , Surgical Department, Naoussa General Hospital,, Surgical Department, Naoussa General Hospital,, GREECE;

**ABSTRACT FINAL ID:** M-31;

**TITLE:** Thoracic trauma in a rural Hellenic hospital

**ABSTRACT BODY:**

**Abstract Body:** Thoracic trauma is the leading cause of death from physical trauma after brain and spinal cord injury. Thoracic trauma is a common cause of significant disability and mortality. Aim of this study was to describe the management and outcome of case with thoracic trauma admitted to a rural district hospital during a 7 year period (2002,2003,2004,2005,2006,2007) . A retrospective analysis was performed in all of the case notes of consecutive cases of thoracic trauma 9 individuals ( 8 men -88,8 % 1 woman -11,2 % , median age 39 years ) presented to the outpatient department and 4 were admitted ( 44,4 % ) . The average length of stay was 11 days. The major parts of the burns were caused by accidents Accurate support for thoracic trauma patients appears to be necessary during the hospital permanence.

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**ABSTRACT FINAL ID:** M-32;

**TITLE:** Heterotopic Pregnancy: A new challenging diagnosis in the pregnant women with abdominal pain.

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Heterotopic pregnancy (HP) is defined as simultaneous occurrence of intrauterine and ectopic pregnancy. The incidence of HP is 1/30,000 in spontaneous pregnancies. However, the incidence has risen to 1/100 with the treatment of in vitro fertilization. Case Presentation: We present the case of a 35 year old female who presented to emergency department after a syncope episode prior to boarding a plane. Patient arrived with stable vital signs but complaining of suprapubic and RUQ pain. Past medical history pertinent for in-vitro fertilization with a 7 week pregnancy. Physical exam was pertinent for diffuse abdominal pain. Endovaginal ultrasound showed free fluid with associated left adnexal mass and IUP with fetal heart rate of 126. The serum level of beta hCG was 23,000. Patient was consulted to Gynecology service for management. After diagnosis of heterotopic pregnancy, patient developed spontaneous incomplete abortion. Patient underwent D&C for incomplete abortion and conservative management was recommended for the ectopic pregnancy. Conclusion: It is important for emergency physicians to have heterotopic pregnancy as part of the differential diagnosis of a pregnant patient who presents with abdominal pain especially following an in vitro fertilization.

**AUTHORS/INSTITUTIONS:** M.R. Ramos-Fernandez, H. Quinones, Emergency Medicine, UPR Medical Science Campus, Carolina,

**ABSTRACT FINAL ID:** M-33;

**TITLE:** Quantifying, Understanding & Managing Injury Vectors in Georgia

**ABSTRACT BODY:**

**Abstract Body:** The burden of morbidity and mortality in low to middle income countries due to trauma and injury is devastating. According to World Health Organization estimates, almost 90 percent of deaths due to injuries take place in low to middle income countries.<sup>1</sup> Among the reasons why trauma and injury are so devastating is the inadequate systems of emergency care at both the community and hospital levels and inadequate infrastructure. While residents in resource-poor settings are at greater risk for trauma and injury than those in wealthier regions, it is not possible to simply transfer technologies from developed trauma programs to developing programs because the context in which injuries occur is different. The Georgian College of Emergency Physicians has initiated a National Evidence Based Program in Injury and Trauma that addresses epidemiology, prevention, early-coordinated-definitive response and rehabilitation, while primary consideration is given to the safety of EMS responders. Immediate deaths (instantly up to 1 hour) can be prevented only by injury prevention programs. The only chance for the patient's survival is for the incident not to have occurred.

Early deaths (up to the first few hours) can be prevented through timely, appropriate prehospital care to reduce mortality and morbidity. Late deaths (up to a couple weeks) can be prevented only through prompt transport to a hospital appropriately staffed for trauma care.<sup>2</sup>

Quantifying mortality rates by time enables evidence based decisions in resource allocation. Sound Scientific Data Collection Principles are implemented to classify intentional and unintentional trauma. Quantitative analysis and medical informatics are the basic tools for utilizing the generated data to develop evidence based protocols for clinical treatment and prevention programs. Conclusively a system of informing national health care policy, to take actions that are in line with public health priorities in Georgia including critical demographic factors that address the ethical, legal and social implications as well is under development.

<sup>1</sup>World Health Statistics 2011

<sup>2</sup>PHTLS Prehospital Trauma Life Support 6th Edition

**AUTHORS/INSTITUTIONS:** K. Karavasilis, D. Sergeenko, , Georgian College of Emergency Physicians, Sachkhere, GEORGIA;

**ABSTRACT FINAL ID:** M-34;

**TITLE:** Shift Work and the Aging Emergency Physician

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Emergency Medicine used to be the domain of very young, junior and inexperienced doctors. As the specialty of Emergency Medicine has developed, we find that our patients need and demand highly trained emergency physicians available around the clock. The fact is also obvious - that us 'older' emergency physicians need work! This results in middle aged (45 years or more) or older doctors working unfashionable "after hours" shifts at a time when their bodies are resisting such work hours. "Older" emergency physicians report poor sleep, increased alcohol and other drugs to assist sleep or even a move away from emergency medicine altogether. This sleep disruption affects information processing and decision making. Workplace errors can result. Longer term industrial relations issues show that 'older' emergency physicians leave clinical practice and this may also impact on recruiting new trainees. DISCUSSION: This paper examines methods that improve the work conditions for 'older' emergency physicians. Techniques such as forward rotating shifts, physician selection of shifts and other 'lifestyle' changes t can be applied to keep your older emergency physicians practicing clinical medicine. Dietary advice, sleep cycle advice and basic rostering techniques are discussed in this paper.

**AUTHORS/INSTITUTIONS:** A.D. Meyer, J.E. Parkinson, Emergency, Casey Hospital, Australia, Melbourne, Victoria, AUSTRALIA;

**ABSTRACT FINAL ID:** M-35;

**TITLE:** Development and Upgrades of an Emergency Department in a Small Medical Center Serving an Ultra Orthodox Community

**ABSTRACT BODY:**

**Abstract Body:** MHMC is a unique medical center that established in a ultra orthodox city, in order to meet the needs of population and answer the particular needs of the religious inhabitants of the city. The hospital provides medical care, without compromising the spiritual level of the environment distinctive to it. MHMC operates under the direction and guidance of some of the most distinguished rabbinical authorities in Israel, yet it provides the best medical care. There are no requirements or restraints regarding the religious / belief of the employees, many of them are seculars or form other religions. In recent years MHMC has been undergoing a process of accelerated growth, with the goal of providing an adequate response to the growing number of referrals. The medical center is serving about 100,000 patients a year. As part of the development process, MHMC management “invested” in the Emergency Department (ED) as the “mirror” of the medical center, as well as a “key point” for the development of hospital- community relations. In order to develop the ED function, a new ED director (Emergency Physician) was appointed. The new director faced many challenges, among them: the need to staff knowledge upgrade (physicians and nurses) while meeting the international emergency medicine standards, and working by update standards. Major challenges related to the expansion of the relationship with the unique community being served by the hospital. During two years, the number of ED visits multiplied, new physicians are working in the ED, and some of the training program and “on spot” practice are running. The paper will present the process of development and upgrade the ED as well as the challenges facing a new ED director while starting work in such an ED.

**AUTHORS/INSTITUTIONS:** R. Libster, Emergency Department, Mayanei HaYeshua Medical Center , Bnei Brak, ISRAEL;

**ABSTRACT FINAL ID:** M-36;

**TITLE:** Respect for privacy in Hospital Emergency Departments in Aragón (Spain)

**ABSTRACT BODY:**

**Abstract Body: METHODOLOGY:**

Prospective multicenter study, through a standardized questionnaire, that was completed by a stratified random sample of patients discharged from the ED.

**RESULTS:**

We analyzed 3949 questionnaires, mean age 51 years.

The questions and the percentages were:

- 1 .- Did you feel that others could hear your conversations with a physician or nurse? Sure (9.8%), Probably Yes (12.8%) I Do Not Know (13.6%), Probably Not (28.2%), Sure Not (35.5%)
- 2 .- Did you feel that your personal information may have been overheard by others? S (7.5%), PY (13.2%), IDNK (14.1%), PN (28.7%), SN (36.5%)
- 3 .- Did you hear other patients' conversations with a physician or nurse? S (14.5%), PY (9.9%), IDNK (8.9%), PN (18.5%), SN (48.3%)
- 4 .- Did you change or withhold any information from your physician or nurse because you felt that it may be overheard by others? S (1.6%), PY (2.9%), IDNK (6.5%), PN (16.1%), SN (72.8%)
- 5 .- Did you feel that unauthorized persons were able to see you while you were receiving assistance? S (3.9%), PY (6.7%), IDNK (12.2%), PN (29.1%), SN (48%)
- 6 .- Did you feel that unauthorized persons may have seen personal parts of your body while you were receiving assistance? S (2.5%), PY (5.5%), IDNK (10.4%), PN (23.7%), SN (58%)
- 7 .- Were you able to see other patients while they were receiving assistance? S (7.3%), PY (6.5%), IDNK (6.2%), PN (16.9%), SN (63.2%)
- 8 .- Did you refuse any part of your physical examination because you felt it might be seen by unauthorized persons? S (0.8%), PY (1.9%), IDNK (4.9%), PN (15%), SN (77.3%)
- 9.-For this visit, rate how well the ED staff respected your privacy. Nothing (0.9%), Some (3.4%), Uncommon (6.9%), Enough (38.6%), Long (50.2%)
- 10.-For this visit, rate your overall sense of privacy. N (3.6%), S (4%), U (13.3%), E (38.3%), L (40.8%)
- 11.-For this visit, rate how well your expectation of privacy was met. N (3.5%), S (4%), U (12.4%), E (38.2%), L (42%)

**CONCLUSIONS:**

About 60% of patients believe their auditory privacy is respected and about 80%, visual privacy.

According to the results observed, the right to privacy seems to be violated in an important percentage of cases in the ED.

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**ABSTRACT FINAL ID:** M-37;

**TITLE:** Satisfaction of the patients attended in the emergency room of the acute hospital

**ABSTRACT BODY:**

**Abstract Body:** Objectives:

Know the degree of overall satisfaction of the Emergency room Users and analyze the factors that can influence in the perception of the quality of care received.

Methods:

Survey to users of the Emergency room attended from May 15 to June 15, 2010. Data were obtained on the opinion regarding waiting times, handling, information received, organization and service structure. The end-point "opinion on the overall quality of attention received" was re-coded into two categories (less than 8 points and 8 or more), and this was considered as the response end-point and the others as explanatory endpoints.

Results:

75 surveys were performed. The mean waiting times were assessed as adequate in 81.08%. Care by the practitioner and nurses and the information received surpassed a mean score of 8 points. Aspects related with the structure and organization scored lower (mean score around 6). With regard to the attention received in the hospital, the percentage of patients who answer that the sanitary attention has been much better or better than expected is 66.2%. 90.41% considered that their problem was solved and 90.14% of those surveyed returned to this same emergency service. The waiting time until being seen by the practitioner is the point that is significantly related to the perception of quality of care received.

Conclusions:

Although a high degree of satisfaction is observed in most of the areas, it seems that the physical structure and Emergency room organization must be improved. The results of this study can be a starting point to orient the hospital efforts towards improving the quality of service offered.

Key Words: Overall satisfaction. Quality of care. Emergency room.

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**ABSTRACT FINAL ID:** M-38;

**TITLE:** Safety Emergency Services

**ABSTRACT BODY:**

**Abstract Body:** Objectives:

The main objective of this study is to measure the degree of patient safety culture among health professionals who work in the emergency department Hospital. Evaluate the presence of positive and negative factors related to patient safety.

Material and methods:

This is a cross-sectional study that was conducted based on the implementation of the survey "Hospital Survey on Patient Safety Culture," with its version adapted by the Research Group on Quality Management at the University of Murcia.

This survey was distributed and an anonymous self-report of 60 health professionals. The same that included both health and administrative staff, who were working in the emergency department Hospital including dates to 2010.

Results:

The overall perception of safety was 45%. 63.3% of the people who take the survey, gave patient safety a score from 6 to 8. 15% of respondents have taken any notice in the last year.

Emphasize positive character dimensions "Teamwork within units" with 74.2% and "Expectations / actions responsible for the service / unit" with 67.1%. How weaknesses include "Provision of human resources" with 68% and "Management Support for Patient Safety" with 35%.

Conclusions:

The low overall level of safety awareness serves as an indicator of the need to increase institutional actions based on patient safety which can encourage a more satisfactory patient care and safe for both parties.

It has managed to identify as a positive factor perception eminently proper teamwork within the unit, a feature that should be promoted and considered within the continuous improvement aspects of the hospital.

The fact of finding as weakness Human Resource Endowment is what generates work overload and in time will increase the margin of error that is exposed to health personnel. We must encourage those responsible for the organization to prioritize adequate hospital rationalization of staff and improvement in working patterns to which they are subjected.

Being able to identify the strengths and weaknesses in the security climate in the unit may serve to develop strategies for continuous improvement in our hospital.

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**ABSTRACT FINAL ID:** M-39;

**TITLE:** Patients with positive blood culture discharged from a Taiwan community hospital ED

**ABSTRACT BODY:**

**Abstract Body:** Background: Patients discharged from emergency department may need timely follow up arrangement because laboratory report may not be readily available at the time when decisions regarding disposition are made.

This is especially the case when positive blood cultures are reported days after our patients' emergency department (ED) visits. Although designated staff in charge of ED discharged follow up seems to be necessary for patient safety concern, the issues of economic consideration need to be reviewed.

Purpose: The purpose of the study was to evaluate the status quo of patients with positive blood culture discharged from a Taiwan community hospital ED.

Methods: Patient with positive blood culture discharged from a Taiwan community ED within two months interval were reviewed.

Results: There were 87 blood culture positive cases in the study period, 11 of them were discharged without admission or referral to other hospital. Among the discharged cases, 9 of the isolated species were considered to be due to contamination.

Discussions: Though positive blood culture follow up in ED discharged patients may be important, the cost would be unnecessarily high if blood culture were not obtained according to strict protocol and contaminated.

**AUTHORS/INSTITUTIONS:** P. Chih, , En Chu Kong hospital , New Taipei city, TAIWAN;

**ABSTRACT FINAL ID:** M-40;

**TITLE:** Establishment of State Emergency Medical Service of Latvia

**ABSTRACT BODY:**

**Abstract Body:** Introduction. Emergency medical service (EMS) system form an integral part of any public health care system: its pre-hospital setting whose primary function is to deliver emergency medical care (EMC) in all emergencies day-to-day and in time of disasters. That system should be efficient and well structured.

Objective. Represent recent restructuring of EMS system in Latvia from decentralized to centralized/unified EMS organization model and its benefits.

General information. In order to implement a national health policy and to achieve the goals of prehospital EMC development set in the policy documents, on February 1, 2009 an institution with direct administration 'State Emergency Medical Service' was de jure established. As a result of gradual merging of EMC providers from 39 municipalities and reorganization of public institutions (incl. Center of Disaster Medicine), from July 1, 2010 the unified State Emergency Medical Service provides EMC in all territory of Latvia. Other functions provided by State Emergency Medical Service – call center, medical advice, specialized EMC, disaster preparedness, maintenance of medical reserves, organization of repatriations and medical transfers, supply of medical materials and drugs, training of personnel etc.

EMS system management was improved. Number of administrative structures and dispatch centers was sharply reduced. Internationally certified quality management system was introduced (ISO 9001:2008).

Results. Experienced reform in health care system allows assessing strengths and weaknesses of two different systems – decentralized and centralized. There is more significant positive aspects for centralized EMS system - unified administration, organization and planning of EMC provision, effective management of resources, cost effectiveness, unified regulations and equipment, unified information system and electronic data base of medical records available for analysis, reporting and making evidence based decisions and more resources to achieve objectives.

Conclusion. Latvian government and World Bank experts recognized structural reform of EMS system in Latvia as one of the most successful in health care.

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**ABSTRACT FINAL ID:** M-41;

**TITLE:** Management of Emergency Department in Regional Hospital Durres Albania{SRD}

**ABSTRACT BODY:**

**Abstract Body:** Emergency Department{ED}in SRD works as separated ED.Durres city has about habitants.This ED is polyvalent, excluding pediatric and gynecological EM. ED has 25 beds,5 for intensive care,20 for others.We have to use in any case abdominal, cardiac and vascular ultrasound ,radiological examinations,including CT,and all laboratory examinations.We have in our disposal 10 monitors to observe vital signs.In our ED work 2 EM physicians, 2 surgeons, 1 resuscitator and 6 nurses in a shift.Our ED cover territorial EM with the same team alternated between them and 5 ambulances.In our ED we make about 150 visits for 24 hours.From those 11 patients are major EM {first level 6.6 %} in these nosology ;2 surgery EM,4 cardiac EM ,3 cerebrovascular EM,1 head injury and 2 others EM {metabolics,intoxications,pulmonary ect }.15 patients {10 % }are second level EM. The other part of patients are third and fourth level EM {white EM }.In this situation still being are challenge to reduce number of white EM doing right triage.

**AUTHORS/INSTITUTIONS:** F. Domi, , Regional Hospital Durres, Durres, ALBANIA;

**ABSTRACT FINAL ID:** M-42;

**TITLE:** A Survival Analysis of California Emergency Departments: What Makes Them More Likely to Die?

**ABSTRACT BODY:**

**Abstract Body:** Background: Emergency Department (ED) closures are thought to threaten community access to emergency services, but few data exist to describe factors associated with ED closure.

Methods: Retrospective cohort study of California hospital EDs between 1998 and 2008, using hospital and patient level data from the California Office of Statewide Planning and Development (OSHPD), as well as OSHPD Patient Discharge Data. We examined the effects of hospital and patient factors on the hospital's likelihood of ED closure using Cox proportional hazards models.

Results: Over 4,411 hospital-years of observation, 29 of 401 (7.2%) EDs closed. In unadjusted analyses, EDs that were county-owned, for-profit, and serving higher proportions of black patients and Medicaid recipients were more likely to close. In models adjusted for total ED visits and hospital discharges, hospitals with more black patients (OR 1.35,  $p = 0.003$ ) and Medicaid recipients (OR 1.24,  $p < 0.001$ ) had higher adjusted odds for ED closure, as did for-profit institutions (OR 1.59,  $p = 0.015$ ). Due to the small number of ED closures (29) we also performed a sensitivity analysis by cross-validating the data and conducting 500 bootstrap samples for each of the models. The results were robust to our findings using the whole sample.

Conclusion: The population served by EDs and hospitals' profit model appear to be associated with ED closure. Whether our findings are a manifestation of poorer reimbursement in at-risk EDs is unclear.

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**ABSTRACT FINAL ID:** M-43;

**TITLE:** Effects on patient outcomes after trauma center closure

**ABSTRACT BODY:**

**Abstract Body:** Background: Trauma centers are a critical but costly element of the medical care infrastructure in the US. Many trauma centers incur financial losses due to underfunding and disproportionate shares of Medicaid and indigent patients, and are therefore at higher risk of closing their services. We examine the effect of trauma center closure on in-hospital mortality of trauma patients.

Methods: We performed a retrospective study of all recorded patient visits to Level I and II, non-federal trauma centers in California for the time period 2002-2008, using the outcome of in-hospital mortality of patients who received care in a trauma center during the study period. The treatment group consisted of all patients who experienced an increase in driving times to their nearest trauma center; the control group contained all patients who did not experience an increase in driving time. Driving time was defined as the estimated time to drive from the center of a patient zip code to the geo-coded location of the nearest trauma center. We controlled for injury severity, as well as age, gender, race/ethnicity, and comorbidities.

Results: We studied 579,942 admissions to all hospitals. 13,611 (2.4%) of the population experienced an increase in driving time to the nearest trauma center. Of these patients, the adjusted OR of in-hospital death was 1.15 (95%CI 1.01, 1.31) compared to the reference group of patients who did not experience an increase in driving time to nearest trauma center. Sensitivity analysis using three categories (decrease, no change, and increase in driving time) showed that the increase in mortality of the last group did not change (OR 1.14 compared to reference group, 95% CI 1.01, 1.30).

Conclusions: We find empirical evidence for adverse effects on patient survival due to the closure of trauma center that result in increase driving times. These findings suggest that closures of these centers are potentially dangerous to the surrounding community. Factors influencing the closure of trauma centers should be monitored and possibly better regulated.

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**ABSTRACT FINAL ID:** M-44;

**TITLE:** Orthopaedic trauma in Giannitsa General Hospital

**ABSTRACT BODY:**

**Abstract Body:** Orthopaedic trauma is a common cause of significant disability and mortality. Orthopaedic trauma management and care including compartment syndrome, ATLS, open fractures, mangled extremity, soft tissues etc. Aim of this study was to describe the management and outcome of case with orthopaedic trauma admitted to a rural district hospital during a 8 year period (2002,2003,2004,2005,2006,2007,2008,2009) . A retrospective analysis was performed in all of the case notes of consecutive cases of orthopaedic trauma . 450 individuals ( 385 men -85,5 % , 65 women -14,5 % , median age 35 years ) presented to the outpatient department and 420 were admitted ( 93,3 % ) . The average length of stay was 5 days. The major parts of the burns were caused by accidents Accurate support for patients Orthopaedic trauma appears to be necessary during the hospital permanence.

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**ABSTRACT FINAL ID:** M-45;

**TITLE:** Using queuing theory to analyze the performance in Targu Mures Accident and Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Emergency department crowding represents a common characteristic that may affect the quality and access to health care. Analyzing the ED presentations during the last few years we have observed a constant increasing of presentation numbers. In 2004 we received 24.240 patients and now, in 2010, this number has increased to 37.684 which means 55% percent more presentations. All of this when the Emergency Department has the same surface and the personnel has not increased in number too much. For each ED it is a challenge to decrease the patients' waiting time, to provide timely care and to improve the patient's satisfaction. Long waiting times is the most important complaint in patient satisfaction surveys. We have evaluated 2195 questionnaires for a period of three years (2008-2010). The general satisfaction rate is 84,63% and the most frequent complaints are about the waiting time which is too long, the waiting room which is small and the personnel which is insufficient. In the same time in our regulations it is stipulated that no-one should be waiting for more than six hours in the accident and emergency department from arrival to admission, transfer or discharge. In our services more then 15% of patients stay longer than 6 hours. To manage in a proper way these situations we proposed, for our analysis, to use queuing models which can provide reasonably accurate evaluations of our system's performance. The queuing theory is basically a mathematical approach applied to the analysis of waiting lines. Various interventions designed to address input, throughput, and output were summarized, highlighting the complexity of variables and difficulty in proving the effects of specific interventions. The results of this study can help us understand the magnitude of the broader problem, the relationship between resources and waiting times, provide a method for understanding and monitoring performance, to find solutions to better understanding and alleviating the daily crisis.

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**ABSTRACT FINAL ID:** M-46;

**TITLE:** Life Threatening Premature Ventricular Contractions

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Premature ventricular contractions (PVCs) are frequently detected during auscultation or routine EKG. No treatment is indicated in patients with asymptomatic PVCs in the absence of cardiac diseases. However, PVCs can be presented as a marker for serious heart diseases or life-threatening arrhythmias. CASE REPORT: A 61-year-old male with a history of PVCs for more than 10 years was brought to the ER after being found intoxicated on the street. He had a history of alcohol abuse and his PVCs were attributed to excessive alcohol consumption. Vitals signs were T 96.4 °F, BP 133/76 mmHg, HR 95 /min, RR 18, SpO2 96% on room air. He was oriented only to person. His heart sounds were irregularly irregular, lungs were clear to auscultation and there was trace bilateral leg edema. His EKG/ER monitor showed frequent PVCs. The laboratory was significant for alcohol level 271 mg/dl and magnesium 1.8 mg/dl. The patient was admitted for telemonitoring, which revealed multifocal PVCs and nonsustained ventricular tachycardia. During the subsequent electrophysiologic (EP) study, inducible rapid polymorphic ventricular tachycardia was observed. Unfortunately, he refused defibrillator implantation. DISCUSSION: PVCs are one of the most common arrhythmias that can occur with or without heart disease. PVCs are notoriously induced or exacerbated by alcohol intake. Such PVCs are usually considered benign and treated by avoiding alcohol. In this case, no extensive cardiac work-up had been performed in spite of his long history of PVCs. While there are benign PVCs that do not require treatment, life threatening PVCs do exist. His PVCs reflected severe alcohol cardiomyopathy as well as lethal ventricular arrhythmias. The significance of PVCs depends on the clinical context in which they occur, but longstanding history of PVCs plus chronic alcoholism deserves particular clinical attention. In conclusion, PVCs in alcoholic patients need further investigation. They may serve as a marker for underlying cardiac diseases or life threatening arrhythmias.

**AUTHORS/INSTITUTIONS:** T. Shinha, L. Wolf, A. Lazaridez, , Long Island College Hospital, New York, NY;

**ABSTRACT FINAL ID:** M-47;

**TITLE:** It is not always Acute Coronary Syndrome: A Case of Spontaneous Coronary Artery Dissection

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Spontaneous Coronary Artery Dissection (SCAD) is an extremely rare cause of acute coronary syndrome (ACS) and sudden death. Standard therapy has not been established, ranging from conservative management to percutaneous revascularization or coronary artery bypass surgery. CASE REPORT: We report a case of a 45-year old male presenting with chest pain typical of ACS. Once the clinical findings suggested acute infero-lateral myocardial infarction, the patient underwent emergent cardiac catheterization which showed left anterior descending coronary artery dissection, which in itself is not a common cause of infero-lateral ST elevation changes on ECG. DISCUSSION: This case highlights the fact that although SCAD is a rare entity, it is increasingly being recognized as a significant cause of ACS. Emergency physicians should consider this diagnosis in evaluating young patients without or with few classical risk factors for coronary artery disease presenting with ACS. Moreover, early diagnosis and appropriate management significantly improves outcome in these patients.

**AUTHORS/INSTITUTIONS:** S. Pothiawala, F. Lateef, Emergency Medicine, Singapore General Hospital, Singapore, SINGAPORE;

**ABSTRACT FINAL ID:** M-48;

**TITLE:** Kounis Syndrome After a Wasp Sting

**ABSTRACT BODY:**

**Abstract Body:** CASE REPORT: A 43 year old man developed acute myocardial ischemia after being stung in the neck by a wasp. He had no history of ischemic heart disease and no known allergy to wasp venom. DISCUSSION: This complication in the context of an anaphylactic reaction after a wasp sting is very rare and has only been described about 14 times worldwide. This reaction is defined as Kounis syndrome or allergic myocardial ischemia and infarction. The myocardial infarction is possibly a result of coronary vascular contraction induced by histamine. Other causes can be the action of wasp venom constituents or therapeutic intervention with epinephrine.

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**ABSTRACT FINAL ID:** M-49;

**TITLE:** Cardioversion of Atrial Fibrillation

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** To evaluate the attitude in our service to the cardioversion of atrial fibrillation (AF) over 3 years. **METHODS:** We collected those AFs susceptible to cardioversion over three years. We studied variables including: heart disease based upon absence or presence of AF, treatment, drugs used in pharmacologic cardioversion (flecainide or amiodarone), if the cardioversion was effective or not. Thromboprophylaxis and destination of the patient. **RESULTS:** In the year 2008 our service treated 301 patients with AF, 72 were eligible for cardioversion. 75% had no underlying heart disease and 51.1% AF paroxysmal. Cardioversion was performed in 87.5% of cases, with 84.7% drug. Flecainide was used in 42.8% and amiodarone was used in 57.2%, and was effective in 89.1% of patients. Thromboembolic prophylaxis was successful in 67.2% of patients. It was at home from our service 78.1%. In 2009, 319 patients were diagnosed with AF in the emergency department of which 101 were eligible for cardioversion. They had no known heart disease and 75% of the AFs were paroxysmal. Cardioversion was performed in 91.1% of cases, with 84.8% drug. Flecainide was used by 58.7% and amiodarone for 41.3%. It was effective in 98% of patients. Thromboembolic prophylaxis was successful in 71.8% of patients. 78.3% were discharged from emergency department. In 2010, 293 patients were diagnosed with AF in the emergency department of whom 92 were eligible for cardioversion. There was no underlying heart disease in 75% of patients and 51% were paroxysmal AF. Cardioversion was performed in 87.3% of the cases, 74.9% with drug. Flecainide was used in 58.6% and amiodarone in 41.4% of cases. It was effective in 92.3% of patients. Thromboembolic prophylaxis was successful in 78% of patients. 78.3% were discharged. **CONCLUSION:** Overall in these three years we have not seen an evolution in defibrillation, but in general the number is high, but still in 15% of patients we could improve care. A slow improvement in thromboprophylaxis increasing by 10% in recent years. 3 out of 4 patients are discharged from our service, which could be indicative of the importance of this cardioversion in the emergency department.

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**ABSTRACT FINAL ID:** M-50;

**TITLE:** Diagnostic Workshop of Chest Pain in Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** It's necessary to define, for an Emergency Department (ED) with high number of hits, a diagnostic workup of chest pain in order to identify patients who need a course of treatment priorities and to ensure the clinical care and assistance to all others. The study aim was to check the sensitivity of the path of identifying all patients who require a process of priority (STEMI) and to analyze the role of exercise testing in the ED for others. **METHODS:** Sandro Pertini Hospital has 87,000 accesses/year. Chest pain is 4,3%. We compared data from the first half of 2009 and the same time in 2010 to evaluate the appropriateness of the diagnostic workup for chest pain patients. In the first half of 2009 we analyzed 1582 patients with primary diagnosis of chest pain; in the same semester of 2010 1437 cases were analyzed. The route will run 12-lead ECG in the evaluation and triage performed by the emergency room doctor; in the case of ST elevation, Priority Code is red and we activate the path of the joint medical assessment Emergency/cardiologist. The other patients potentially discharge (medium and low risk) perform an exercise test in the ED. **RESULTS:** In 2009 we launched in hemodynamic 83 STEMI with a median time of 56 minutes while in 2010 87 STEMI started in hemodynamics with a mean time of 52 minutes. The other medium and low risk underwent exercise test (TE) pre-discharge in the emergency room. In 2009, 109/1582 patients performed TE and four of these were positive (3.6%). In the same half of 2010 206/1437 patients performed TE and 11 were positive (5.3%). **CONCLUSIONS:** We observed that execution and adherence to ECG triage protocols can reduce the time taken to send the patient to the appropriate location with an outcome positive in particular in cases of STEMI. The performance of TE in ER increased the percentage of resignations security (2009:32% - 2010:46%), reduced hospitalization (2009: 22%; 2010: 20%) and identified the low rate of patients with inducible ischemia (2009: 3.6% - 2010: 5.2%)

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**ABSTRACT FINAL ID:** M-51;

**TITLE:** Multiple Vascular Pathology Associated with Massive Pulmonary Embolism-Therapeutic Decision

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Massive pulmonary embolism (PE) is a critical emergency with a well set diagnosis and management algorithm but a series of pathological associations might change the strategy of diagnosis and management for the patients benefit. We describe the therapeutic changes during massive PE associated with other vascular pathology, and major clinical/laboratory investigations in this particular case. CASE REPORT: Female, M.A., 54 yrs, Dolj County complaining of thoracic pain for several days, lasting 15' each, initiated by physical work and calmed by repose, followed by continuous thoracic pain. In 2 days her general condition is alterated, the patient is dyspnoeic, coughing, with haemoptysis and stitching thoracic pain. Clinical examination - cyanosis, dyspnoea, obese patient with post-thrombotic syndrome, Plth 72%, 86% with O2, BP 60mmHg at her left arm and 130/80mmhg at her right arm, HR114 bpm, ECG-S wave in D III, aVF, negative Twave in D III, V1, V2, cTnl negative, DD 4,55 microgr/ml. The clinical suspicion of massive PE leads to thrombolytic therapy, but chest X ray and echocardiography suggest aortic dissection with an extension to the left carotid and subclavicular artery and local thrombosis. Thoracic CT reveals an intra-atrial septum aneurysm at the foramen ovale with aortic and pulmonary artery thrombosis. The therapeutic strategy changed from thrombolysis to aggressive anticoagulant therapy followed by cardiac surgery. After 24 h improvement in the ischemic signs and the remission of the occlusive phenomenons in pulmonary artery. DISCUSSION: There are associated pathologies that need complex investigations available in level I hospitals. Therapeutic staging with postponing thrombolysis for a certain period of time had the advantage to restrict the fragmentation of the thrombus. The risk of pulmonary hypertension by partial thrombolysis from pulmonary artery trunk may be considered as an acceptable side effect. The purpose of surgical intervention is to prevent the risk of relapsing, surgical treatment of the ASD and treatment of the aortic, carotid and subclavicular artery remaining thrombosis.

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**ABSTRACT FINAL ID:** M-52;

**TITLE:** Effective Causes Early Prescription of Streptokinase in Myocardial Infarction

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Cardiovascular incidents are the most common cause of death in the whole world, in this case MI is the most life threatening occurrence which is mostly caused by plaque rupture or erosion with superimposed non occlusive thrombus, so early treatment with antithrombotic agents plays an important role in reducing the number of deaths caused by MI. This study is designed to assess the mean time between the entrance of patients suspicious for MI to Emam Hossein hospital and the initiation of the treatment. **METHODS:** This study is an interpretive-descriptive in a form of cross sectional study, is carried out on 110 patients admitted to Emam Hossein emergency department in the year 1386. The data were obtained through checklists filled out by patients' families or the emergency staff. To compare the average and results T-Student test and variant analysis is used. **RESULTS:** In 110 case, 31 cases were female, 79 case were male. The mean time was 66/39 minute and was 73/74 minute for female patient, 63/5 minute for male patient, in addition 49/92 minute in morning shift, 69/78 minute in the afternoon shift and 72/68 minute in the night shift, which has significant analytical diversity.

**CONCLUSION:** This mean time called Door To Needle time in valid scientific leagues in the whole world is just 30 minute. In comparison with our study, it is obviously 2 times faster and also is more in female than males and in the afternoon and night more than morning shift. Different variants like emergency staffs, physicians, patient factors, environmental-physical factors can cause this difference and some other factors can cause this difference which should be closely discussed and followed to offer the clues.

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**ABSTRACT FINAL ID:** M-53;

**TITLE:** A Comparison of Effects of Early Plavix Treatment with Dosages of 75 Milligrams and 300 Milligrams in Emergency Wards

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Considering the high rate of cardiovascular disease in Iran, a quick diagnosis and the prescription of drugs and dosages in our country should be adopted to the prevalent climatic and racial conditions. A study is needed to determine whether methods suggested are also suitable for our country. The practice under study here is the early administration of Plavix to patients with heart conditions in emergency wards. **METHODS:** First we chose two Tehran super specialty hospitals which received a great number of cardiovascular patients (Baghiatullah and Imam Hossein Hospitals). Early doses of Plavix were administered to patients with cardiovascular conditions. In 50 patients in Baghiatullah hospital the initial dose was chosen at 75 milligrams while in 50 patients in Imam Hossein Hospital it was decided to set the initial dose at 300 milligrams and it was decided to use the domestic product at both hospital. Patients given the initial dose were given a constant daily dose equal to the initial dose during their stay in the hospital. The number of days of hospitalization and side effects were monitored until their discharge from the hospitals. **RESULTS:** Patients suffering from acute coronary conditions, who were taken to Baghiatullah Hospital and given a dose of 75 milligrams, were hospitalized for 48 to 72 hours and then discharged while patients of a similar condition who were not given the shot were usually hospitalized for 96 hours before being discharged. Patients with acute coronary conditions who reported to Imam Hossein Hospital were given an initial dose of 300 milligrams. It was later demonstrated that this dosage had no significant effect on the duration of hospitalization, which for patients formerly hospitalized was around 48 hours. **CONCLUSION:** It could be concluded that in our country, administering an early low dose of Plavix (at emergency ward stage) is preferable to a later administration and it is also preferable to the administration of high doses.

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**ABSTRACT FINAL ID:** M-54;

**TITLE:** Female physicians correctly identify more Acute Coronary Syndrome cases than male physicians on ECGs from Emergency Department chest pain patients

**ABSTRACT BODY:**

**Abstract Body: Background**

More than 180 000 Swedes annually present at the emergency department (ED) with chest pain suspicious of acute coronary syndrome (ACS). In these patients, the ECG is considered to be the single most important diagnostic tool. However, ED physicians' ability to correctly diagnose ACS on the ECG is unclear.

**Materials and methods**

800 ECGs were electronically collected from consecutive chest pain patients at the Lund ED of Skåne University Hospital in 2006-2007. The ACS prevalence in these patients was 15 %. A total of 80 ED physicians across Sweden each interpreted 20 randomly ordered ECGs, and each ECG was interpreted by two physicians. For each ECG the physicians answered the question "does this patient have ACS?" (yes/no) and marked the likelihood of ACS on a scale of 0-100. The reference standard was the patients' discharge diagnosis (ACS or not) in actual care, and statistical comparisons were made using the Mann-Whitney test.

**Results**

See tables 1 and 2

**Conclusion**

ED physicians' ability to diagnose ACS on the ECG is low, but female physicians identified significantly more ACS patients than male physicians. Female physicians assigned a higher ACS likelihood than male physicians both in patients with and without ACS, and also in patients not believed to have ACS by the ED physician. Female physicians may identify more ACS cases because they are more hesitant to rule out ACS on the ECG than male physicians. These possible differences in decision-making need to be explored in further studies.

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**ABSTRACT FINAL ID:** M-55;

**TITLE:** INTEGRATED HEALTH CENTERS. NEW EXPERIENCE IN PUBLIC HEALTH ASISTANCE IN TACHYARRITHMIAS

**ABSTRACT BODY:**

**Abstract Body:** Problems asociated to overcrowded emergency departments continue to be a major health problem in Spain. Different governements and health authorities have experienced a prior step to the Hospital ED with the development of these Integrated Health Centers (IHC). These centers coordinate the Primary Care and the daily activity of the Family doctors with some other hospital specialist as an outpatient clinic. In addition to this, the emergency assistance is warrantied by Familiy doctors with special skills on Emergency and acute cardiologic care. Even though these kind of cliinics could be not considered as a hospital facility, our doctors have basic laboratory as well as simple radiology support.

These IHC are reducing our hospitals overcrowded ED frequentation improving the asistence in both steps. Patients with mild problems could be treated in these IHC with a accurate lab and radiology support. Patients do not have to be transported to a hospital far away from their villages or neighbourhoods due to problems that could be solved by IHC doctors, avoiding ambulance transportation and reducing the delay in the assistance to acute and major health pathologies at the hospitalaty EDs.

Acute hearth pathologies are mainly first treated by our IHC doctors due to the fact that the IHC are mostly downtown, the posibility of quick initial evaluation and the important lab and radiology support.

An important amount of patients complaint of cardiorespiratory problems and improving antiarrithmic tretament is one of our goals considering that we do not have cardiology nor intensive care support on these centres and patients with acute heart diseases should be transferred to our Hospital, miles away to these IHC. We present here how an important amount of patients with heart rythm diseases are first evaluated at our IHC.

We present hereby our protocol according to the last AHA recommendatios.

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**ABSTRACT FINAL ID:** M-56;

**TITLE:** Short and long term prognostic value of the OESIL risk score in a cohort of patients admitted in an Emergency Department Observation Unit

**ABSTRACT BODY:**

**Abstract Body:** Abstract

**Aims.** We assessed short and long term prognostic value of the OESIL risk score (ORS), a risk stratification rule for syncopal patients which is typically based on four risk factors (abnormal ECG; age > 65; history of cardiovascular diseases; lack of prodromal symptoms) to identify patients at higher risk of mortality. Each out of this four parameters is counted as 1 and patients with  $ORS \geq 2$  are considered for hospitalization.

**Methods and results.** The syncopal recurrences, readmission for syncope, readmission for other reasons, major therapeutic procedures, cardiovascular events, death for any reason, death for cardiovascular disease was assessed in a cohort of 200 syncopal patients at both 1 month and 1 year after discharge. Multinomial logistic regression analysis showed that  $ORS \geq 2$  is not predictive of any endpoint, except major procedures. Conversely,  $ORS \geq 3$  was a strong predictor of at least 1 adverse event within 1 month and severe outcomes within 1 year, particularly for non-syncopal readmission (OR 2.326; 95% C.I., 1.299-4.166;  $p < 0.005$ ), major procedures (OR 3.19; 95% C.I., 1.51-6.71;  $p < .002$ ), cardiovascular events (OR 3.14; 95% C.I., 1.17-8.41;  $p < .023$ ), and death for any cause (OR 4.57; 95% C.I., 1.25-16.75;  $p < .022$ ).

**Conclusions.** Our patient group was significantly older than the ORS derivation cohort ( $72.4 \pm 15.1$  vs.  $59.5 \pm 24.3$  yrs) and mostly above the age considered as 1 point in the ORS, so it is rather understandable that only a more restrictive cut-off might be advantageous for identifying high risk patients. On the evidence of a progressive ageing of patients presenting at the EDs, we suggest to use a  $\geq 3$  ORS threshold when deciding for admission.

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**ABSTRACT FINAL ID:** M-57;

**TITLE:** Pericardial Tamponade in a Patient Recently Started on Dabigatran

**ABSTRACT BODY:**

**Abstract Body:** Dabigatran etexilate (Dabigatran) is a newer oral anticoagulant agent currently in use as an alternative to warfarin. Dabigatran does not require regular serum monitoring and has fewer interactions with food and drugs than warfarin. Dabigatran has no reversal agent currently available and at the dose of 150 mg has a similar rate of major hemorrhage as compared to warfarin.

**Case Report:** This is a case report of a 70 year old male who had been taking dabigatran and presented to an emergency department with malaise and the complaint of a fast heart rate. On transthoracic echocardiogram (TTE) he had evidence of a pericardial effusion and tamponade physiology. A pericardiocentesis was performed and 800 cc of bloody fluid was obtained.

**Objectives:** Report the case of a bloody pericardial effusion in a patient on dabigatran.

**Conclusions:** To our knowledge this kind of complication in a patient taking dabigatran has never been reported.

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**ABSTRACT FINAL ID:** M-58;

**TITLE:** Paroxysmal atrial fibrillation occurring after vagal maneuvers, refractory to antiarrhythmic medication

**ABSTRACT BODY:**

**Abstract Body:** Introduction. Atrial fibrillation (AF) is by far the most common cardiac arrhythmia in adults presenting in the Emergency Department (ED). Its incidence is continuously rising, being associated with increased morbidity and mortality mainly due to its association with thromboembolic disease and most of all, stroke. Case presentation. We report the case of a 64-year-old woman, with complex pathology (coronary disease, arterial hypertension, autoimmune chronic thyroiditis with hypothyroidism, familial hypercholesterolemia) with palpitations that started about 20 minutes before the presentation to the ED, accompanied by muscle weakness, diaphoresis and thoracic discomfort. Affirmatively, it is the fifth episode in the last seven days, and is on  $\beta$ -blocker, aspirin and acenocumarolum treatment since the first one (diagnosed as paroxysmal AF). ECG: AF with HR=150-160 b/min, which is converted to sinus rhythm after administration of class III antiarrhythmic (amiodarone iv). Laboratory: INR=3,2 with the rest of the blood tests in normal ranges (including thyroid hormones). Transthoracic echocardiography: normal cavities dimensions, valves of normal aspect, no intracavitary thrombus. The angiography: circumflex artery with stenotic lesion 70%. PTCA is performed with stent implant. After PTCA and the initiation of antiarrhythmic IC class (propafenone) the patient continues to suffer paroxysmal AF episodes, after Valsalva equivalent maneuvers (yawning), so the IC class antiarrhythmic is replaced with an IA class (disopiramide), followed by relieving of symptoms. Radical radiofrequency ablation is being considered so the patient is being monitored. Conclusion. Besides the two major objectives of AF patient management: control of the heart rate/rhythm and anticoagulation therapy, the identification and treatment of etiological factors might as well be of great importance. Although there was a multitude of risk factors that were taken into consideration, including myocardial ischemia, hemodynamic stress or endocrine disorder, in the case we presented above the triggering factor for the AF episodes was a rise in vagal tone.

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**ABSTRACT FINAL ID:** M-59;

**TITLE:** Temporal Trends in the Proportion of Patients with Congestive Heart Failure Presenting to an Italian Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Study Objective: Many advances have been made recently in treatment of congestive heart failure (CHF), including the use of beta blockers and a focus on patient education. We previously found a decline in the proportion of emergency department (ED) patients with CHF presenting to a group of EDs in the United States. We hypothesize that the proportion of ED patients with CHF presenting to an ED in Italy has also declined.

Methods: Design: Retrospective cohort. Setting: Consecutive patients in an Italian ED from 1/1/2004 to 12/31/10. Protocol: We classified patients as having CHF if the first ED diagnosis was congestive heart failure, heart failure or pulmonary edema. Data Analysis: We calculated the proportion of CHF visits as the annual CHF visits to total annual ED visits. We compared proportions using the Student t test and 95% confidence intervals (CI) were calculated. We performed a linear regression analysis for the proportion of CHF visits versus year. Alpha was set at 0.05.

Results: Of the 511,654 ED visits in the database, there were 4418 visits with an ED diagnosis of CHF. Female comprised 46%. There was little change in the annual mean ages of CHF patients: 77.4 +/- 0.7 years. The proportion of CHF visits remained relatively constant with an annual mean proportion of 0.86% +/- 0.08%. The proportion in 2010 was 8% higher than in 2004 but this was not statistically significant (95% CI, -2% to 18%). There was no statistically significant correlation in the proportion of CHF visits versus year (R squared = 0.001, p=0.93).

Conclusion: Contrary to our hypothesis we did not find the proportion of CHF visits declined in an Italian ED during the time period 2004 to 2010. This is in contrast to a 44% decrease in the proportion of CHF visits in a group of EDs in the United States over the same time period. This difference could be due to differences in the rates of implementation of treatments for CHF in the two countries. One explanation is that Italy had already adopted these treatments before the time period of our study.

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**ABSTRACT FINAL ID:** M-60;

**TITLE:** The Mean Age of Patients Presenting to the Emergency Department in Congestive Heart Failure is Now Increasing

**ABSTRACT BODY:**

**Abstract Body:** Background: Given the aging population and better treatments for congestive heart failure (CHF), we hypothesize that the mean age of patients presenting to the Emergency Department (ED) with CHF has increased in recent years.

Objective: To examine the mean age of ED CHF patients versus year.

Methods: Design: Retrospective cohort of ED visits. Setting: 28 suburban, urban and rural New York and New Jersey EDs with annual visits of 22,000 to 82,000. Population: Consecutive patients seen by ED physicians from 1/1/1996 to 12/31/2010. Protocol: Using ICD9 codes, we identified CHF visits if the first diagnosis was CHF, heart failure or pulmonary edema or if one of these was the second diagnosis and the first was shortness of breath, dyspnea, respiratory failure or wheezing. Data Analysis: We calculated the mean ages of patients presenting with CHF for each year. We compared mean ages using the Student t-test ( $\alpha = 0.05$ ) and calculated 95% confidence intervals (CI).

Results: Of the 9,471,741 ED visits, 120,948 (1.3 %) were for CHF. Of these, 54% were female. There was a decrease in mean age from 1996 through 2006 and an increase thereafter. The mean age decreased from 1996 to 2006: 75.1 to 71.4 years (difference = 3.8; 95% CI 3.2-4.3,  $p < 0.001$ ). From 2006 to 2010 it increased to 75.7 years (difference = 4.4; 95% CI 3.9-4.9,  $p < 0.001$ ). Similar patterns were present for females and males analyzed separately.

Conclusions: The mean age of ED CHF patients decreased from 1996 to 2006, then increased from 2006 to 2010. This may have resulted from a changing balance between the aging population, better treatments and risk factor modification, but why 2006 was a pivotal year is unclear.

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**ABSTRACT FINAL ID:** M-61;

**TITLE:** Emergency Physician Estimates of the Probability of Acute Coronary Syndrome in a Cohort of Patients Enrolled in a Study of CTCA

**ABSTRACT BODY:**

**Abstract Body:** Little information exists regarding how accurately emergency physicians (EPs) predict the probability of acute coronary syndrome (ACS). Objectives: to determine if EPs can accurately predict ACS in a prospectively identified cohort of Emergency Department (ED) patients who meet cardiac computerized axial tomography (CCT) eligibility criteria and are being admitted for a "rule-out ACS" protocol. Methods: a prospective observational pilot study in an academic medical center. EPs caring for patients with chest pain provided whole number estimates of the probability of ACS after clinical review. This substudy was part of the larger ROMICAT study. Predictions were grouped into probability groups based on the validated Goldman criteria. ACS was determined by an adjudication committee using American Heart Association/American College of Cardiology guidelines. Results: 334 predictions were obtained for a sample population with mean age of 54 (SD 12) years; 63% male. There were 35 ACS events. EPs predicted ACS better than chance and increasingly higher estimates were associated with a higher incidence of ACS ( $p=0.0004$ ). The percent of patients with ACS was 0, 6, 7, and 17% respectively for very low, low, intermediate, and high probability groups. EPs' estimates were insensitive (63%) using a >20% probability of ACS to define a positive test. Lowering this threshold to >7% to define a test as positive would increase sensitivity of physician estimates to 89% but lower specificity from 65 to 24%. Conclusion: Pilot data suggest that EPs predict ACS better than by chance and with an increasing trend between their probability estimates and the presence of ACS. Lowering the estimate threshold to achieve a reasonable sensitivity is not sufficient to send patients home from the ED, and is associated with a low specificity.

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**ABSTRACT FINAL ID:** M-62;

**TITLE:** Patent foramen ovale diagnosed in a young male patient with acute peripheral arterial embolisation and recurring pulmonary embolism

Role of bedside transthoracic echocardiography at the emergency department

**ABSTRACT BODY:**

**Abstract Body:** Paradoxical embolism is a certain clinical entity, in which thrombi of the venous system cause arterial embolisation, through any right-to-left shunt. Most frequently, the pathological finding behind these shunts is patent foramen ovale (PFO).

The existence of PFO should be presumed, when deep vein thrombosis and/or pulmonary embolism are present at the same time with systemic embolisation. According to certain clinical data, the prevalence of PFO can be as high as 30% in young adults,

Our case presentation is about a young sportsman, whose recurring pulmonary embolism and PFO was discovered after being hospitalized with acute right lower extremity embolism.

Patient was admitted to the emergency room with signs of acute right femoral arterial embolism. Medical history revealed, that the patient had been investigated previously for symptoms of recurring dyspnoea ,and chest discomfort without any reassuring result (echocardiography, coronarography and cardiac MR were completed) At emergency department, immediate transthoracic echocardiography was performed which showed marked elevation in the right ventricular systolic pressure with further indirect signs of pulmonary embolism. Urgent Chest CT scan was performed thereafter and proved subtotal occlusion of the pulmonary arteries. The simultaneous appearance of both pulmonary and systemic embolisation raised the possibility of PFO, which was later confirmed by transoesophageal echocardiography. According to the patient's medical history and to the clinical findings, we presumed, that recurring pulmonary embolism was the underlying disease responsible for the patient's former complaints of dyspnoea. .

As a summary, our goal was not only to represent a case with a rarely diagnosed entity, but to emphasize the importance of urgent transthoracic echocardiography in the diagnostic and therapeutic procedure at the emergency department, as well.

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**ABSTRACT FINAL ID:** M-63;

**TITLE:** Seasonal Pattern of Patients Presenting with Aortic Dissections to Emergency Departments

**ABSTRACT BODY:**

**Abstract Body:** Study objective: There is considerable evidence indicating that major cardiovascular events do not take place uniformly throughout the year but occur more often in the winter. One cardiovascular event of particular concern to emergency department (ED) physicians is aortic dissection (AD). The largest study examining the seasonality of ADs found they occurred more frequently in the winter with an increase of 48% in the winter compared to the summer. Our goal was to determine if this seasonal pattern in the occurrence of ADs was also present in a large database of ED visits.

Methods: Design: Retrospective cohort. Setting: 33 New York and New Jersey EDs with annual visits between 8,000 and 75,000. Population: Consecutive patients seen by ED physicians between January 1996 and December 2010. Protocol: We identified ADs using ICD-9 codes. Seasons were defined as: winter (Dec-Feb), spring (Mar-May), summer (Jun-Aug), fall (Sep-Nov). We corrected total seasonal AD visits to take into account the slightly different total number of days in each season. We analyzed differences using the Chi Square and the Student's t tests with  $\alpha = 0.05$  and calculated 95% confidence intervals (CIs).

Results: Of the 9,471,741 total ED visits, we identified 804 aortic dissections (1 per 11,781 ED visits). For AD patients, the mean age was 66 +/- 16 years and 38% were female. Of the 804 ADs, 26%, 24%, 21%, and 28% occurred in the winter, spring, summer and fall, respectively. The number of AD visits differed significantly by season ( $p=0.034$ ). The fall had the highest number of ADs and summer, the least. Comparing the fall to the other seasons combined, there was a 19% increase (95% CI, 1% to 41%,  $p = 0.05$ ). There were 22%, (95% CI, 0% to 44%,  $p = 0.05$ ) more ADs in the winter than the summer.

Conclusion: Contrary to previous studies done in other locations we found the fall was the season with the highest occurrence of aortic dissections in New York and New Jersey emergency departments. However, similar to previous studies, we found a higher occurrence in the winter than in summer.

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**ABSTRACT FINAL ID:** M-64;

**TITLE:** M.Latissimus Dorsi Hematoma

**ABSTRACT BODY:**

**Abstract Body:** Feriyde ÇALISKAN TÜR (1), Olcay GÜRSOY (2), Yalçın GÖLCÜK(2), Murat Yesilaras (1), Ersin Aksay (3)

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**Background:**

In the literature were many cases of coumadine over doses. But we dont see any for latissimus dorsi muscle hematoma.

**Case report:**

A 56-year-old man arrived at the emergency department with a 2 weeks history of right side low back pain. There was suddenly begin swelling before 1 hour. In the medical history were coumadine treatment because of deep venouse trombosis. He don't remember any trauma. His vital signs included a blood pressure of 185/86, heart rate of 115 beats/min, respiration rate 20 breaths/min, fever 36 C, and an oxigen saturation of %96 on room air. The physical examination showed a skin lesion located on the righ quadrant (Figure 1) as 15x7,5 cm and secondly lateraly of this lesion an irregular 6x6 cm painfull lesion.

Labouratory tests give us a result of hemoglobin concentration of 14.6 g/dl (range 12-16 gr/dl), hematocrit level of 43.1% (range 38-50%), and platelets of 432x10<sup>3</sup>/mm<sup>3</sup> (range 150-450x10<sup>3</sup>/mm<sup>3</sup>). His prothrombin time was 34,9 seconds (range 11,4-15,5 seconds), parsiel thromboplastin time was 37,4 (range 22,6-35 seconds), and International Normalized Ratio (INR) was 3,65 (range 0,8-1,2) seconds. The result of abdominal ultrasound showed an irregularly and subcutanously located 9x5 cm lesion on lateral abdominal wall suspected hematoma. Abdominal computed tomography (CT) was planed (Figure 2) and the result was a hematoma in right latissimus dorsi muscle. The patien was admitted to internal medicine department and was treated with freesh frozen plasma.

**Conclusion:**

Normaly we seen traumatic hematomas in the soft tissue or muscle. But patient medicated with coumadine sould be aware of internal hematomas. We showed with this case that hematomas can be not only in rectus sheath as more seen in literature but also in 'latissimus dorsi musle'. This is a rare seen condition, and become with minimal trauma in this case.

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**ABSTRACT FINAL ID:** M-65;

**TITLE:** A systematic review of pharmacological cardioversion for acute onset primary atrial fibrillation and implications for future research.

**ABSTRACT BODY:**

**Abstract Body:** Objectives and Background:

Atrial fibrillation (AF) is the commonest arrhythmia presenting to the Emergency Department (ED) in the United Kingdom (UK).

The National Institute for Clinical Excellence (NICE) has published guidelines on the management of acute onset primary AF. However, there is evidence to suggest a lack of consensus between emergency physicians regarding preferred treatment options.

Therefore our objectives are:

To systematically review the best available evidence to determine the most efficacious drug for pharmacological cardioversion of acute onset primary AF in patients presenting to the ED

To discuss the implications of this systematic review for future research in this area and for guidelines on the management of acute AF

Methods

A systematic literature search was conducted in MEDLINE (2000-present) and EMBASE (2000-present). Predefined inclusion criteria were used for identification of relevant studies (Figure 1). Data on patient characteristics and efficacy of individual drugs for cardioversion was extracted and an assessment of methodological quality applied.

Results

Eleven articles were included for systematic review including a total of 1661 patients. All articles included patients with an AF duration of less than 48 hours.

Intravenous (IV) amiodarone was confirmed as superior to placebo with statistical significance (94% vs 67% at 24 hours).

IV flecainide was found to have a statistically significant shorter mean time to cardioversion relative to IV amiodarone (25 minutes vs 333 minutes,  $p < 0.001$ ).

Conclusion

The results from this systematic review broadly endorse the NICE recommendation for pharmacological cardioversion of acute onset primary AF.

Flecainide and amiodarone are the most efficacious drugs for cardioversion readily available in the UK for this defined patient population.

However we feel that future research should focus on alternative drugs not currently licensed in the UK that have shorter half-lives than presently used drugs, and that may therefore facilitate early discharge from the ED and avoid hospital admission.

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**ABSTRACT FINAL ID:** M-66;

**TITLE:** Clinical characteristics of Wellens' syndrome

**ABSTRACT BODY:**

**Abstract Body:** Background

In 1982, Wellens et al first published the clinical and ECG criteria of Wellens' syndrome (SD), an inverted T-wave at V2-3 with tight proximal left anterior descending (LAD) artery stenosis. We sought to evaluate the clinical characteristics of Wellens' SD including incidence, echocardiographic findings, and progress

Methods

We reviewed medical records, echocardiographic reports, and coronary angiographic findings of patients with unstable angina diagnosed during 2 years (from August 2008 to August 2010).

Results

Proportion of Wellens' SD was 7.5% (15 patients) of initial diagnosed as unstable angina. Female was 60%. Mean age was 63 year old. More than 50% LAD stenosis was observed in every cases (mean stenotic area was 78%), and 67% of patients suffered multi-vessel diseases. Serum Tnl level of type II (characterized as deep inverted T) was higher than type I (characterized as biphasic T wave at V2-3) ( $p=0.02$ ). Ejection fraction of type II was lower than type I ( $p=0.04$ ). 27% of patients progressed to myocardial infarction (one patients was ST segment elevation myocardial infarction).

Conclusion

Emergency physicians should understand the specific ECG findings of Wellens' SD with associated clinical features. Early coronary artery intervention should be performed for prevention of coronary arterial obstruction.

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**ABSTRACT FINAL ID:** M-67;

**TITLE:** thrombolysis in submassive PE - should we?

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION

Pulmonary embolism (PE) is a source of debate amongst emergency physicians due to its heterogeneous presentation, inconsistent clinical findings and conflicting opinions on best management. It is underdiagnosed in acute care settings, and initiation of appropriate therapy is often delayed. Thrombolysis is considered the standard of care in the management of massive PE, where there is the arterial hypotension or cardiogenic shock. Patients with PE and normal haemodynamics are routinely treated with anti-coagulants. A further sub-group of PE with right heart strain which carries at least a 2-fold increase in clinical deterioration and significantly increased mortality.

AIM

To determine if there is current evidence that administration of thrombolytics to patients with PE and stable haemodynamics reduces mortality, prevents PE recurrence and lessens the risks of longer-term sequelae

METHODS

A literature search was carried on and from a total of 145 papers found, 8 were included which looked at thrombolysis in patients with PE and stable haemodynamics, with or without RHS.

RESULTS

Each was studied and none showed a significant improvement in mortality when comparing thrombolysis with anti-coagulation alone. There was a significant reduction in PE recurrence in patients treated with thrombolysis. The studies were of variable quality and all looked at short-term outcomes. Further study is needed to determine any longer-term benefits of thrombolysis.

CONCLUSION

There is insufficient evidence to recommend the administration of thrombolytic therapy to patients with haemodynamically stable pulmonary embolism. Risks associated with thrombolytic therapy are not insignificant with intra-cranial haemorrhage being the most feared complication

Further study is needed to determine the long-term benefits of early pulmonary reperfusion in order to make an informed risk management decision. A multi-centre trial is currently being conducted across Europe with the aim of determining how best to treat these patients

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**ABSTRACT FINAL ID:** M-68;

**TITLE:** Epidemiological profile of patients with hypertensive crisis

**ABSTRACT BODY:**

**Abstract Body:** Introduction

In a review published in the journal "Emergency" of 2010 of the Spanish Society of Emergency Medicine, have changed the diagnostic criteria for hypertensive crisis, defined as such when the patient has systolic blood pressure levels (SBP) greater or equal to 180 mmHg and/or diastolic blood pressure (DBP) less than or equal to 120 mmHg, without affecting the target organs.

Purpose

Establish the epidemiological profile of patients with hypertensive crisis attending the emergency department of our hospital

Method

Retrospective epidemiological study. Our emergency department serves an average of 300 patients a day. During the year 2009 a total of 1106 attended the emergency department with a discharge diagnosis of hypertensive crisis, selecting 672 of them to meet the criteria referred. The study variables were age, sex, cardiovascular risk factors, complaint, based antihypertensive treatment.

Results

65.5% were women and 34.5% men. The mean age was 64.44 years. 82.7% were hypertensive, diabetic 28.1% and 26.5% dyslipidemia. Most of the snuff and alcohol were not included in the stories (55.1 and 61.2% respectively). The reason for visiting the headache 33.3%, followed by 24.1% asymptomatic, 20.8% feeling instability, pain (except headache) 15.6%, 6.8% visual disturbances, epistaxis 2.5%, came to 14.7 for another reason. Of 82.7% of patients were previously diagnosed with hypertension, which were based on the treatment of 86.3%, with most of the family drug ARA II (41.9%), followed by a 26.6% ACE inhibitors, diuretics 25%, Block Beta 19.8%, calcium antagonists 16.7%, 2.9% alpha-blocker and selective inhibitor of renin by 0.2%. 48.6% of patients have only a drug based treatment.

Conclusions

There have been few studies that analyze the characteristics of patients with hypertensive crisis with the aforementioned blood pressure. The majority of patients attending our emergency department for hypertensive crisis in 2009 were women as in other series, mostly already diagnosed with hypertension. One in four patients were asymptomatic at admission. Despite being patients with preexisting hypertension, one out of ten treated patients did not receive

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**ABSTRACT FINAL ID:** M-69;

**TITLE:** Acute Vascular pathology and atmospheric changes in Emergency services

**ABSTRACT BODY:**

**Abstract Body:** Objective:

Provide Data of the influence of the atmospheric changes in NTAVP in our environment.

Methods:

Study: Observational and prospective. Period: 2 years ( 01/01/2009 till 31/12/2010). Sample: Patients over 14 years old that consulted with (NTAVP) in our Emergency service (ES) Variables:affiliation and demographic data, consulting time slot in ES and final diagnosis of the process.

During the period of study The National Metereological institute took four daily measurements(at 7 AM, 13, 18 ,24 hours ) of the atmospheric pressure, temperature and the relative humidity in our influence area. Then we proceeded to do an Univariate statistical analysis applying chi square, T Student or Anova for the comparison of qualitative variables, considering statistical significance those values with  $p < 0,05$ .

Results:

During the period of study 609 patients were attended for NTAVP (1,1% of the total of visits in ES), 60% were male ( $p < 0,05$ ). The 609 cases came in 412 days , from these, 318 were free of disease. We found a characteristic distribution, with a daily prevalence in the time of consulting (9-12 am) ( $p < 0,05$ ).

The NTAVP occur predominantly in days with lower atmospheric pressure ( $p = 0,05$ ). The previous atmospheric pressure drop two days before is associated with an increase of consults for NTAVP ( $p = 0,01$ ). Regarding to ambient temperature, we observed an increase in stroke during lower temperatures ( $p = 0,04$ ), with an anual distribution prevalence in winter season, and a major number of UA with higher temperatures ( $p = 0,04$ ).

Conclusions:

1-The NTAVP represented the 1,1% of the consults in our emergency service during the analyzed period.

2-The prevalence was higher in male than female.

3-The NTAVP is more frequent in the winter season and during the 9-12 am time slot.

4-We find a statistical significance between higher temperatures and the appearance of UA

5-We find statistical significance between lower temperatures and stroke.

6-The prevalence of NTAVP as got a statistical significance ratio with the two days previous atmospheric drop. This could provide an improved management of the resources in the emergency services.

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**ABSTRACT FINAL ID:** M-70;

**TITLE:** CHANGES IN HOSPITAL CARE REGIONAL LLUIS ALCANYS- XATIVA (SPAIN) RESPONSE SYSTEM WITH MODIFIED MANCHESTER TRIAGE TO HYPERTENSION

**ABSTRACT BODY:**

**Abstract Body:** Authors: Montalvá Barra, JC (1), Alvarez, R (2), Valencia, L (3), Sanchez, R (4), Pinzon, A (5), Fernandez de Castro, R (6)

Arterial hypertension is a common chronic disease in the emergency and early approach can make the patient to avoid serious cardiovascular events as emergency systems should prioritize the performance. The risk of hypertensive emergencies are relatively low in the studies but the consequences can be fatal.

Single-center retrospective study (Lluis local hospital emergency service Alcanys Xativa) with collection of items for subsequent evaluation.

Variables: age, gender, reason emergency stay, destination and see if changes in treatment at discharge

Manchester through a system of modified emergency Xativa 65084 were collected in 2010 of which 333 correspond to acute complications of hypertension in the last 6 months. adults 40 to 85 years of age. 60.6% were women and length of stay were divided into 3 ranges: 41.7% were less than 3 hours, 49.55% were between 3 and 9 hours and only 8.71% spent more than 9 hours

The grounds of the emergency department in 25.5% (85 patients) were due to elevation of blood pressure, 37.25% (124 patients) for hypertensive crisis and 8.7% (29 patients) for hypertensive emergency.

92.8% of the patient was discharged and joined the rest of hospital

Conclusion: Following the triage system more effective and urgent action favors stay and average levels of clinical control than other county hospitals in the region with indices of income of only 7.2% and 92.8% higher

**AUTHORS/INSTITUTIONS:** J. Montalva, Urgences service, hospital Lluis alcanys, Xativa, valencia, SPAIN;

**ABSTRACT FINAL ID:** M-71;

**TITLE:** Diagnostic value of Growth Hormone, IGF-1 and IGFBP-3 biomarkers in acute myocardial infarction

**ABSTRACT BODY:**

**Abstract Body:** IGF-1 enhances cardiac contractility and cardiac performance. Growth Hormone (GH) and IGF-1 receptors can be expressed in myocardial cells and GH affects heart both directly and local or systemic induction through IGF-1. IGF-1 is also known to be decreased notably in the acute myocardial infarction (AMI).

In this study we compared the serum GH, IGF-1 and IGFBP-3 levels of AMI diagnosed patients those were measured within the first 24 hours with serum troponin levels. We tried to determine changes of GH, IGF-1 and IGFBP-3 levels in AMI and possible relations with biochemical determinants of MI.

107 patients from AMI patient group and 32 patients from the control group were taken to the research.

It is determined that; among the control group and AMI group, there were no differences demographic features. There was no significant difference for IGF-1 between AMI and control groups. In AMI group, GH and IGFBP-3 levels are considerably higher than control group ( $p < 0.001$ ) but there is no significant difference in IGF-1 levels.

For AMI group, IGF-1 level is lower in female patients, having an additional disease, who are DM and smokers ( $p < 0.05$ ), and IGFBP-3 level is higher in older patients ( $p < 0.01$ ). In those who are Non ST Elevation Myocardial Infarction (NSTEMI), IGF-1 was found to be lower ( $p < 0.01$ ).

In AMI group, in those who have lower IGF-1, the ratio of pain starting-admittance of emergency service time 0-3 hours is.

It is found that there is a negative relation between Troponin I and IGFBP-3 ( $p < 0.01$ ), lower IGF-1 ratio is increased in NSTEMI patients ( $p < 0.05$ ), and IGFBP-3 is higher in STEMI patients ( $p < 0.001$ ).

Again, in accordance with the literature, it is determined that between IGF-1 and IGFBP-3 levels, there is a positive significant correlation.

Our research demonstrates that between AMI and GH, IGF-1, IGFBP-3, there is a meaningful but complicated relation and we think there is need for more comprehensive and detailed studies. We believe that highlighting this relation will provide huge benefits for preventing coroner artery diseases which are among the main reasons of mortality in the future.

**AUTHORS/INSTITUTIONS:** H.C. Halhalli, M.A. Karamercan, Y. Katirci, K. Vural, Y.K. Gunaydin, F. Coskun, , Ankara Education and Research Hospital Department of Emergency Medicine, Ankara, TURKEY;

**ABSTRACT FINAL ID:** M-72;

**TITLE:** Comparison of management of Emergency Department patients transported via EMS versus self-presentation with STEMI changes on initial EKG.

**ABSTRACT BODY:**

**Abstract Body:** BACKGROUND:

ACC/AHA performance measures for adults with ST elevation myocardial infarction (STEMI) recommend EKG within 10 minutes and primary percutaneous coronary intervention (PCI) within 90 minutes of hospital arrival. Data also suggest patients with STEMI who arrive via EMS receive treatments sooner than those who self present. We compared management of Emergency Department (ED) patients who arrived via EMS vs. self-presentation with STEMI changes on initial EKG.

OBJECTIVES:

To determine if ED patients who present via EMS with STEMI changes on initial EKG receive ACC/AHA recommended therapies sooner than those who self-present.

METHODS:

Patients presenting to the ED between June 2007 and March 2011 with STEMI on initial EKG prompting code STEMI/catheterization lab activation were included. Patients were sub-grouped by mode of arrival (EMS vs. non-EMS transport). Times from door to first EKG (D2E), door to catheterization lab (D2C), and door to revascularization (balloon) (D2B) were retrospectively analyzed and compared with t-test.

RESULTS:

In the study period, 118 patients presented with STEMI on initial EKG. 63 arrived via EMS and 55 self-presented. The median D2E time was 8min<3.0-13.5> in the EMS group vs. 9min<5.0-14.0> in the non-EMS group (p=0.24). 45 EMS patients went to catheterization with a median D2C time of 49min<34.5-67.0> vs. 37 non-EMS with median time 50min<32.5-70.0> (p=0.80). 29 EMS patients had PCI with a median D2B time of 71min<55.5-102.0> vs. 27 non-EMS who had PCI with a median time of 75min<57.0-92.0> (p=0.86). Of note, 17 EMS patients had pre-hospital catheterization lab activation, and 13 of these went to catheterization with a median D2C time of 39min; 8 had PCI with a median D2B time of 58min.

CONCLUSIONS:

There was not a statistically significant difference in D2E, D2C, or D2B time between patients presenting via EMS or self-presentation with STEMI on initial EKG. This may reflect our small sample size. A minority of EMS patients had pre-hospital catheterization lab activation and these patients have the shortest median D2C and D2B times.

**AUTHORS/INSTITUTIONS:** J.J. Collins, S. Weiner, Emergency Medicine, Tufts Medical Center, Boston, MA;

**ABSTRACT FINAL ID:** M-73;

**TITLE:** Stroke in a young woman with patent foramen ovale and atrial septal aneurysm

**ABSTRACT BODY:**

**Abstract Body:** The patent foramen ovale (PFO) is a congenital lesion present in 25% of the adult population that favors a right-to-left short due to an increased pressure in right atrium. This can lead to cardioembolic stroke as a complication. The atrial septal aneurysm (ASA) accompanies the PFO in a third of cases.

We assessed the presence of PFO as a cause of cryptogenic stroke in young patients, reviewing the available treatment options.

We present a 51 year old woman with no history of interest found on the floor with slurred speech and loss of strength in the right hemisphere.

Physical examination showed Glasgow 14, O2 Sat 98%, Temp 35.4, blood pressure 110/53 mm Hg and 70 beats / min. NIHSS:21; cardiopulmonary auscultation normal. Global aphasia with mutism. Right hemiplegia 0 / 5, with mild psychomotor agitation, with Babinski and right hyperreflexia

Blood test and electrocardiogram were normal.

Craneal computed tomography (CT) showed left middle cerebral artery (MCA) ischemia. After 48 hours a new craneal CT showed left hemispheric hypodensity compatible with evolving large ischemic stroke, significant edema, and transtentorial herniation with midline deviation.

MRI showed an abrupt stop at the beginning of the left MCA without atherosclerosis in common carotid or bifurcation.

Eco-Doppler of supra-aortic trunks and lower limbs showed no alterations.

Echocardiogram (ECO) with atrial septal aneurysm of 10 mm and PFO, with positive bubbles test confirmed by contrast transesophageal ECO.

This patient presented with neurological worsening, GCS 10 and increased cerebral edema requiring osmotic diuretics with later improvement. She was discharged one month later treated with warfarin, she was in good situation, she could swallow, with residual right hemiplegia and aphasia.

**CONCLUSIONS**

PFO should be investigated in all patients with stroke of unclear cause, especially in young patients and to involve ASA, due to the increased risk of paradoxical embolism.

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**ABSTRACT FINAL ID:** M-74;

**TITLE:** ST elevation in TCA toxicity: A case report

**ABSTRACT BODY:**

**Abstract Body:** Introduction:

Tricyclic antidepressants (TCAs) were one of the most important causes of mortality.

Cyclic antidepressants have a narrow therapeutic window, increasing their likelihood for toxicity.

An ECG is an essential diagnostic tool in assessing the clinical severity of overdose, because impaired conduction can progress into arrhythmias with cardiovascular collapse. However, it can never be used as the sole method of risk determination.

We report herein, ECG abnormalities specifically ST elevation due to TCA poisoning in the clinical setting.

Case presentation:

A 18-year-old lady was admitted to the emergency department following using 30 tablets of nortriptyline 50mg in a suicide attempt, half hour before admission.

On arrival to the emergency department, the patient was lethargic, with involuntary movements. Her EMV score was E2M2V2.

Pupil reactions were normal. She demonstrated no lateralisation and reflexes were symmetrical. No meningeal signs were noted.

A 12-lead ECG revealed: right bundle branch block (RBBB) in V1, V2 and V3. Deep S in lead I, V5 and V6, tall R in AVR that showed extreme right axis and ST elevation in

V2 and V3 that first springs Brugada syndrome to the mind. ST elevation after TCA toxicity is a rare medical condition and we didn't find any reported cases about it in the literature.

Discussion:

Diagnosis of TCA intoxication can be very difficult. The clinical signs, however severe, are nonspecific.

Cardiovascular and neurological effects are most common. By inhibiting sodium channels, TCAs can delay the propagation of the depolarization and repolarisation in the myocardium. This can lead to prolongation of PR, QRS and QT intervals. AV blocks and bundle branch blocks can be seen. Severe ventricular tachycardia and sinus tachycardia may occur.

Our patient presented with RBBB and ST elevation.

However, it can never be used as a sole method of risk determination. The accuracy of ECG is influenced by the time drug ingestion. Directly after intake the ECG is usually still normal, with abnormalities developing after several hours. Repeat ECGs are necessary when TCA intoxication is suspected.

Key words: TCA, ECG, ST elevation

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**ABSTRACT FINAL ID:** M-75;

**TITLE:** WIDE QRS TACHYCARDIA AND PREEXCITATION SYNDROME

**ABSTRACT BODY:**

**Abstract Body:** A 54 year old male with a history of hypertension and smoking 1 pack / day that goes by in one night episode of palpitations and central chest pain without associated vegetative courtship, without radiation, with mild dyspnea and sudden onset companion during sleep.

TA: 155/55, HR: 230 bpm, 99% SatO2

Normal physical examination with regular and rhythmic heart sounds at 230 bpm without audible murmurs.

Investigations:

Complete analytical study with normal cardiac biomarkers. Chest x-ray findings of interest without

Evolution:

Patient ECG is performed aiming image wide QRS tachycardia (Fig. 1) to 220 bpm. After 6 mg adenosine bolus (Fig. 2), the patient goes to sinus tachycardia at 120 bpm with short PR (Fig. 3) and delta wave (preexcitation syndrome) and standardization of the size of the QRS complex (Fig. 4 ), giving all the clinic.

After Cardiology evaluation of the patient proceeds to study, being derived later Arrhythmia Unit for electrophysiological studies and definitive treatment.

Clinical trial:

1) episode wide QRS tachycardia, 2) pre-excitation syndrome (possible Wolff-Parkinson-White)

Discussion:

The wide QRS complex tachycardias are generally a clinical challenge, because they imply decide without delay whether or not a ventricular tachycardia (VT). If the patient, as in the present case presents hemodynamic stability, it is possible to perform a series of maneuvers that can be both diagnostic and therapeutic as the testimony of adenosine. The administration of intravenous adenosine (iv) if there are no contraindications for it, can be used for diagnostic purposes to have no effect on ventricular tachycardia, but may terminate or unmask supraventricular tachycardia.

In our case, exposing the existence of a preexcitation syndrome compatible with Wolff-Parkinson-White is in the form of antidromic AV reentrant tachycardia.

**AUTHORS/INSTITUTIONS:** C. Suero Méndez, F. Moya Torrecilla, P. Gonzalez Rodriguez-Villasonte, Y. Villalon Alvarado, M. Castillo Trujillo, M. Valero Sanchez, Emergency Department, H.R.U. Carlos Haya de Málaga, Málaga, MÁLAGA, SPAIN;

**ABSTRACT FINAL ID:** M-76;

**TITLE:** Case Report: Bedside Ultrasonography of Right-Sided Abdominal Pain in Early Pregnancy

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Bedside or point-of-care ultrasound is gaining acceptance as an important component of the initial evaluation of the emergent patient with undifferentiated abdominal pain. The characteristics of ultrasound make it ideally suited to the patient requiring multiple studies in whom ionizing radiation, transport time, or test availability are concerns. CASE REPORT: We describe a case in which a pregnant patient is successfully diagnosed in the Emergency Department using bedside ultrasonography, and discuss the role of ultrasound in evaluating right lower quadrant pain in this population.

**AUTHORS/INSTITUTIONS:** A. Shannon, M. Gruber, , Louisiana State University Department of Medicine Section of Emergency Medicine, University Hospital, New Orleans, LA;

**ABSTRACT FINAL ID:** M-77;

**TITLE:** EAST (Extended Assessment Scan in Trauma)

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Bedside ultrasound (US) in the Emergency Department (ED) is a fast and accessible tool for clinical evaluation. Initially a technology utilized in the 1980's for the evaluation of the trauma patient (the FAST exam) ultrasound in the hands of emergency physicians has now rapidly expanded to include the imaging of almost every body part for a variety of complaints. **METHODS:** We reviewed the literature to find out the extended use of ED US in trauma patients. **RESULTS:** Evidence: 1- US of optic nerve sheath diameter for detection of raised intracranial pressure: Intensive Care Med. 2011 Apr 20. US of ONSD shows a good level of diagnostic accuracy for detecting intracranial hypertension. 2- Use of US in diagnosing ocular pathologies in Emergency 2011 www.bestbets:ocular US is a highly reliable tool to detect ocular pathologies in trauma especially when the patient can't open their eyes due to severe injuries or swelling. 3- US guided hematoma block and fracture reduction: a new way to go forward Critical Care 2010. This article shows a new way to manage the fractures with US. 4- US diagnosis of traumatic pneumothorax. J Emerg Trauma Shock. 2008 Jan-Jun; 1(1): 19-20. The lung point is an US sign with 100% specificity for pneumothorax. 5- US-guided three-in-one nerve block for femur fractures. J Emerg Med. 2010;11(4):310-313. 3-in-1 FNB is a rapid and easy procedure for pain relief. 6- Handheld US diagnosis of extremity fractures. J R Army Med Corps 2004;150:78-80. Hand held US can successfully identify long bone fractures in an operational environment. 7- US guided volume assessment using inferior vena cava diameter. The Open Emergency Medicine Journal, 2010, 3, 22-24. The use of US-guided IVC assessment for fluid management in critically ill emergency patients can be a valuable tool. **CONCLUSION:** In light of the above given evidence extended use of US in the ED is quite clear. It is quick, readily available at the bedside and a reproducible investigation. Extended use of US in trauma is still in very early stages but to show this evidence is to emphasize its importance and use in the ED for trauma patients.

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**ABSTRACT FINAL ID:** M-78;

**TITLE:** Hip Sounds

**ABSTRACT BODY:**

**Abstract Body:** Hip pain is a common presenting complaint in children to an Emergency Department. Plain Radiographs are poor at detecting fluid within the hip joint and involve exposing the child to ionising radiation. Ultrasound is relatively easy, safe, cheap and fast. In our Department ultrasound is regularly performed by the ED doctor in assessing the child with suspected hip pathology. Our Results show that it has an important role. So far 8 out of 22 scans performed were positive for effusions.

**AUTHORS/INSTITUTIONS:** E. Fogarty, Emergency Medicine, Waterford Regional Hospital, Waterford, IRELAND;

**ABSTRACT FINAL ID:** M-79;

**TITLE:** Systematic Review: Emergency Department Bedside Ultrasonography for Diagnosing an Abdominal Aortic Aneurysm

**ABSTRACT BODY:**

**Abstract Body:** Introduction: The use of ultrasound to diagnose Abdominal Aortic Aneurysm (AAA) has been well studied in the radiology literature. There is no systematic review of the Emergency Department (ED) experience with ultrasonography for diagnosing AAA. Objective: We reviewed systematically the literature for the operating characteristics of ED ultrasonography for AAA. Methods: We searched Pubmed and EMBASE databases for randomized controlled trials from 1965 through November 2010 using a search strategy derived from the following PICO formulation of our clinical question: Patients: Patients (18+ years) suspected of having a AAA. Intervention: Bedside ED ultrasonography to detect AAA. Comparator: Gold Standard for AAA was either a non-enhanced Computer Tomography (CT), ultrasonography review by radiology or exploratory laparotomy. AAA defined as  $\geq 3$ cm dilation of aorta. Outcome: Operating characteristics (Sensitivity, Specificity, Predictive Values and Likelihood Ratios) of ED abdominal ultrasonography we analyzed using a Forest Plot (95% CI) calculated by Review Manager Version 5.0 (Revman 5.0) Qualitative methods were used to summarize the study results. All indeterminate scans were coded as false negatives. Results: Our search strategy identified 1,195 articles; we excluded 1,153 by relevance of title or abstract, 29 for not being in the ED, 4 without confirmatory tests, 2 case series, and 1 retrospective study; leaving 6 studies with 626 patients.

Conclusion: We identified 6 high quality studies of the operating characteristics of ED bedside ultrasonography in diagnosing AAA. All 6 studies showed excellent operating characteristics for both diagnosing and excluding AAA in the ED.

**AUTHORS/INSTITUTIONS:** L. Paladino, E. Rubano, W. Caputo, N. Mehta, R. Sinert, Emergency Medicine, Downstate, Brooklyn, NY;

**ABSTRACT FINAL ID:** M-80;

**TITLE:** The Use of Bedside Ultrasound to Distinguish Between Cellulitis and Cutaneous Abscess

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Physical exam is most often inadequate in determining which patients with cellulitis require incision and drainage for associated abscess. The use of bedside ultrasound may improve the accuracy of detecting occult abscesses and prevent needless invasive procedures.

Objectives: This case report demonstrates that the use of bedside ultrasound in the Emergency Department (ED) increases accuracy of physical exam findings and decreases time to definitive treatment in patients with facial cellulitis.

Case Presentation: A young male with chronic facial swelling presented to the ED with two days of worsening swelling and new onset pain after manipulating the area to try to get it to drain. He denied fever, chills, neck stiffness, vision changes or pain with eye motion, and acknowledged history of a previous facial abscess at the site, treated with incision and drainage. On examination, he was afebrile, with a normal ocular exam and no lymphadenopathy. Erythema, edema, and tender to palpation were noted at the right malar area. ED ultrasound revealed the small soft tissue abscess, although the maxillofacial CT showed preseptal cellulitis with no specific abscess.

Discussion: Patients with periorbital cellulitis have the potential to develop serious complications such as subperiosteal abscess, cavernous sinus thrombosis, or brain abscess. Rapid diagnose and appropriate treatment are essential. The presence or absence of an abscess in patients with cellulitis is often difficult to determine by physical exam. Accuracy is improved by soft tissue ultrasound, which is often more accurate than CT.

Conclusion: The use of bedside ultrasound to evaluate cutaneous cellulitis for suspected abscess is a quick, convenient, non-invasive, accurate method that allows for rapid decision making and treatment.

**AUTHORS/INSTITUTIONS:** D.L. Lewis, C. Butts, L. Moreno-Walton, Emergency Medicine, Louisiana State University School of Medicine, New Orleans, LA;

**ABSTRACT FINAL ID:** M-81;

**TITLE:** Bedside Cardiac Ultrasound in the Evaluation of an Oncology Patient with Cardiac Symptoms

**ABSTRACT BODY:**

**Abstract Body:** 47 year old female, history of stage IV non-small cell carcinoma of the lung, c/o shortness of breath, chest pain, and tachycardia. Blood pressure 103/70, heart rate 106, respiratory rate 18, temperature 37 degrees, oxygen saturation 99%. On exam, Jugular venous pressure was minimally elevated. Heart sounds were soft. Lungs-decreased breath sounds, greater on the left than the right. Bilateral lower extremities- 1+ edema. EKG- sinus tachycardia with left axis deviation with poor R-wave progression. Bedside echocardiogram was performed with a phased array, low frequency transducer in cardiology mode, demonstrated a pericardial effusion and a well-defined pericardial mass causing a mass effect on the left atrium. Compression of the left atrium can be seen to be nearly complete during systole. Although the pericardial effusion was significant, tamponade was not present as the right atrium and ventricle demonstrated no collapse.

**Discussion:** Hemodynamic compromise is a known complication of metastatic lung cancer with mediastinal involvement. Hemodynamic instability in the patient with a history of malignancy usually prompts consideration of pericardial effusion, pulmonary embolism, myocardial infarction, or aortic emergency. Impairment of cardiac function occurs in 30% of patients with lung cancer with mediastinal extension, usually attributable to pericardial effusion. This case highlights the importance of thinking outside the diagnostic box. Clinicians may focus on the most common complications of malignancy, such as pulmonary embolism and pericardial effusion. In this case, pericardial effusion was one of the findings responsible for the patient's presentation.

**Conclusion:** Known oncology patients presenting with nonspecific signs of hemodynamic compromise can be evaluated in the ED with bedside ultrasound to assess the extent of the compromise and evaluate any malignant pericardial effusion or tamponade. The evaluation is non-invasive and rapidly provides a diagnosis that frequently leads to life-saving intervention.

**AUTHORS/INSTITUTIONS:** R. Stafford, C. Butts, L. Moreno-Walton, Emergency Medicine, Louisiana State University School of Medicine, New Orleans, LA;

**ABSTRACT FINAL ID:** M-82;

**TITLE:** Achieving ultrasound competency: introducing the Finishing School

**ABSTRACT BODY:**

**Abstract Body:** The curriculum for core (level 1) and enhanced (level 2) ultrasound is well established in higher specialty training for emergency medicine, in the United Kingdom (UK). There are many accredited ultrasound courses that provide a comprehensive introduction to particular aspects of point-of-care ultrasound (POCUS). Although an introduction to practical skills is covered within these courses, gaining experience is often left to the trainees own local arrangements. When enough experience is gained, the trainee is expected to trigger their own competency assessment, in line with documentation provided by the College of Emergency Medicine (CEM). The CEM Ultrasound Subcommittee acknowledge that in some areas of the UK the level of mentored supervision and support is patchy. This may also limit the availability of experienced POCUS practitioners to perform objective competency assessments.

We describe a pilot from the CEM Ultrasound Subcommittee, in conjunction with Infomed (a medical course provider company). This two day event in central London was called the Finishing School and allowed candidates, on the first day, the opportunity to get up to 12 supervised scans on all four Core applications, using patients, models and simulation machines. The second day was assigned to competency assessments - 4 assessments undertaken for each application. The assessments were then discussed during a faculty meeting before candidates were informed of their result.

Twenty four candidates attended the first day. Up to 19 candidates were assessed for each modality. Pass rates, by competence area:

AAA 89%;

FAST 67%;

Vascular Access 100%;

Echo in cardiac arrest 72%;

Final sign-offs 56%.

The feedback from the event was positive and we feel that this is an effective way for trainees to gain quality supervised experience as well as a robust objective environment for assessment of competency.

Infomed were tasked with the organisation and programme design of the course. However, the academic content and assessment process was solely under the supervision of the CEM.

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**ABSTRACT FINAL ID:** M-83;

**TITLE:** The launch of the first UK registry for ultrasound competency

**ABSTRACT BODY:**

**Abstract Body:** The curriculum for core and enhanced ultrasound is well established in higher specialty training for emergency medicine (EM) in the United Kingdom (UK). There are many accredited ultrasound courses that provide a comprehensive introduction to particular aspects of point-of-care ultrasound (POCUS). When enough experience is gained, the trainees are expected to trigger their own competency assessment, in line with documentation provided by the College of Emergency Medicine (CEM). Some trainees from non-emergency specialties also utilise the CEM guidance, as they do not have a training and competency framework of their own. From 2013, trainees in EM will be required to be competent at all four core applications (i.e. FAST, AAA, vascular access and echo in cardiac arrest). At present, the CEM has no record of who has been assessed as competent and thus cannot ascertain the overall numbers of trainees successfully completing their POCUS training - from course to competency. This limits the ability of the CEM to identify problems in POCUS training and also to take focused action to improve matters. We describe the launch of an online registry for POCUS users, which will provide a real time record of practitioner competency. Our design brief was to provide an easily accessible online environment, which was simple to use by enabling the user to register and regularly update details. The University of Teesside worked in collaboration with the CEM to host this website (URL: <http://ultrasoundregistry.tees.ac.uk>). The pilot site underwent exhaustive testing by designers and a pilot group of users. The registry went live in time for the inaugural CEM Ultrasound Finishing School (March 2011). The numbers of registered users has increased steadily since its launch. The website complies with data protection. There are no commercial sponsorship or advertisements.

This online registry has filled a gap in the ability of the CEM to monitor the number of POCUS competent clinicians in the UK and also to plan targeted initiatives to improve training. There is flexibility for future expansion of the registry to cover international users and those from other specialties.

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**ABSTRACT FINAL ID:** M-84;

**TITLE:** Experience of Point of Care Ultrasound in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Point of care ultrasound in the Emergency Department is becoming increasingly common place. It is a very useful adjunct for accurate diagnosis and timely management of a wide variety of clinical presentations. With the implementation of college recognized regionally based training in core and enhanced emergency ultrasound, there is an increasing cohort of experienced emergency physicians trained in point of care ultrasound.

We aim to present our experience over the last few years of Emergency Department ultrasound scanning and the interesting and often incidental findings which have changed patient care.

Whilst core scanning techniques continue to be the main focus for point of care ultrasound in our department, enhanced techniques including deep venous thrombosis, early pregnancy, soft tissue, irritable hip and musculoskeletal are now becoming more widely utilized.

We will endeavor to present in this poster examples of our experiences which we hope will be of interest to both core and enhanced point of care ultrasound practitioners.

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**ABSTRACT FINAL ID:** M-85;

**TITLE:** When FAST is a FAFF - A Follow up Study. Focused Ultrasound in Non Trauma Patients in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Background-The authors proposed the term "FAFF" scanning- focused assessment with sonar for free fluid- in a published review (Ultrasound 2008:16(3):165-168). The term was for when emergency ultrasound was applied to the assessment of patients with non traumatic aetiology. This assessment for 'free fluid' would infer pathology when allied with the global assessment of the patient. It was suggested that FAFF scanning would become more widespread and supercede FAST-trauma scans in emergency departments. Objective- We sought to determine whether FAFF scanning or trauma scanning represented the majority of our department's ultrasound work. Methods- 8 month consecutive, retrospective case review, June 2010 to January 2011, of emergency department ultrasounds. Results-155/240-64.5% of scans were for non trauma (FAFF) and 85/240-35.5% of scans were for trauma (FAST). The indications for non trauma scanning included abdominal aneurysm assessment, ascites, focused echocardiography, pleural sliding, peritonism and early pregnancy. Trauma scans were for mono and polytrauma patients. Conclusions- FAFF scanning is superceding trauma scanning by nearly 2:1 ratio in our department. This affirms our original suggestion in 2008 that non trauma scanning as part of the compund assessment of an unwell emergency department patient is where the future lies for point of care ultrasound. Trauma-FAST scans will be a minority indication for focused ultrasound work in emergency medicine, when compared to the overall use of the imaging modality. The authors recommend calling such non trauma patient ultrasound assessments FAFF scans and encourage its widespread use by accredited, trained point of care clinicians.

**AUTHORS/INSTITUTIONS:** S. Maitra, C. Garland, R.D. Jarman, , Queen Elizabeth Hospital, Gateshead, UK, Newcastle upon Tyne, UNITED KINGDOM;

**ABSTRACT FINAL ID:** M-86;

**TITLE:** Ultrasound Evaluation of the Effect of Head Rotation on the Relationship of the Internal Jugular Vein and Carotid Artery

**ABSTRACT BODY:**

**Abstract Body:** study objectives:

Previous studies have shown that when the internal jugular vein (IJ) is 46-90 degrees (deg) in relation to the carotid artery (CA) that safe cannulation of the vein would be difficult, if not impossible. Our goal was to further examine the anatomical relationships of the IJ and CA during head rotation to determine what head position would decrease the risk for CA puncture.

methods:

This is a prospective study using a convenience sample of 100 emergency department patients. Patients were placed in Trendelenburg position, anatomic relationships of the right and left IJ and CA were recorded with head rotation at 0, 45, and 80 deg. All images and measurements were obtained with a 10-5 MHz linear array transducer in the transverse orientation. A goniometer was used to determine the position of the IJ relative to the CA. Using the center of the CA as the horizontal axis +0 to +180 deg depicted the IJ as superficial to the CA and 0 to -180 deg as deep to the CA.

Demographics:

Average age 52.9 yrs (standard deviation 17.2)

Range: 21-95 yrs

BMI 28.1 (standard deviation 8.5)

Range: 14.6-75.9

Male: 50/100 (50%)

Female: 50/100 (50%)

History of DVT/PE: 11/100 (11%)

Vessel Trauma\*: 17/100 (17%)

\*any neck surgery, previous cannulations, or trauma

Results:

At 0 deg of head rotation the 10.1% of right IJV and 19.1% of left IJ were in the high risk zone. At 45 deg of head rotation the 16.1% of right IJ and 24% of left IJ were in the high risk zone. At 80 deg rotation 24.2% of right IJ ( $p < 0.001$ ) and 39% of left IJ ( $p = < 0.001$ ) were in the high risk group. In addition, 3% of patients had reversal of the normal anatomy placing the CA more superficial to the IJ.

Conclusion:

Head rotation should be minimized during IJ cannulation to decrease the chance of CA puncture. Cannulation of the left IJ appears to carry a higher degree of risk as compared to the right IJ. Placing the head in a neutral position, avoiding rotation, and using ultrasound guidance are recommended to minimize complications.

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**ABSTRACT FINAL ID:** M-87;

**TITLE:** Appendicitis and Situs Inversus Totalis: A Time Saving Diagnosis With Bedside Ultrasound

**ABSTRACT BODY:**

**Abstract Body:** Introduction: Situs inversus totalis is an uncommon anatomic anomaly that complicates diagnosis and management of acute abdominal pain. Bedside sonogram may be helpful in diagnosis of acute appendicitis without delay in these patients.

Case report: We present a case of 66 years old male patient who presented to our emergency room (ER) with acute left lower abdominal pain and fever. He was unaware of having situs invertus totalis. Bedside ultrasound done within minutes of his arrival to the ER, showed findings consistent with acute left sided appendicitis and situs inversus totalis.(see fig. 1) The diagnosis was then confirmed about three hours later with laboratories and contrast CT of his abdomen/pelvis.(see Fig.2) The patient underwent an operative laparoscopy with appendectomy without complications.

Conclusion: Apendicitis in situs inversus totalis can be a diagnostic challenge. Bed side ultrasound can be used to establish the diagnosis of acute appendicitis without delay in these patients.

**AUTHORS/INSTITUTIONS:** S. Villanueva, D. Vazquez, , Emergency Medicine Department Ponce School of Medicine, Ponce, PUERTO RICO;

**ABSTRACT FINAL ID:** M-88;

**TITLE:** Nail Bed Injury Detected by Ultrasonography

**ABSTRACT BODY:**

**Abstract Body:** Case Report

A 46-year-old man presented to the emergency department after being injured with a press machine from his left hand 30 minutes before admission. Subungual hematoma was diagnosed in his index finger and the nail plate was intact. Is it possible to identify if this patient has a nail bed injury lays under the hematoma, requiring nail removal and laceration repair?

Bedside ultrasonography examination was performed and the nail bed laceration was displayed. The hand was prepared and after regional anesthesia with digital block, nail was dissected from nail bed and nail bed laceration was sutured with 7/0 absorbable sutures. The recently removed nail was placed back in the nail fold and sutured in place with simple sutures on either two sides of the finger. The patient was discharged with follow up suggestions.

Emergency physicians could identify nail bed injury with bedside ultrasonography examination. This non-invasive, cheap and repeatable diagnostic modality could preserve patient from a nail removal procedure that is even complex and invasive. Actually, a subungual hematoma does not require nail removal as long as the nail plate is intact and trephination with an 18-gauge needle or electrocautery is a suitable and efficient management for patient comfort (1). A high frequency linear transducer (7.5 to 10 MHz) is placed to the fingertip with a stand off pad in vertical plane in order to display the lesions of nail bed (2) (Figure 2).

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**ABSTRACT FINAL ID:** M-89;

**TITLE:** Development of an Ultrasound Transducer Stabilization Device

**ABSTRACT BODY:**

**Abstract Body:** Background: It is well established that the use of ultrasound decreases time and morbidity in common emergency medicine procedures.

Purpose: The purpose of this study was the development of a device to stabilize the ultrasound transducer during an ultrasound guided procedure.

Methods: This was as collaborative effort between an undergraduate engineering department and the section of ultrasound within the department of emergency medicine. The following uses were identified: hold multiple transducers, strength to hold transducer, flexibility for multiple positions on multiple anatomic locations, high portability, ease of cleaning. The device consists of 3 components, a clamp, an arm, and a transducer holder. The clamp is a standard channel lock. The arm is a flexible tubing currently on the market, Lockline. This tubing is impervious to water and multiply articulated for maximal adjustability. It has the strength to maintain its form while suspending a transducer. The transducer holder was machined as a hinged lock box padded with rubber to allow firm grasp of the various sizes of transducer. The entire device is submersible in liquid and can tolerate anti-microbial disinfecting products.

Conclusion: The transducer stabilization device worked well in the simulated clinical environment, met the criteria outlined above, and was developed at a low cost

**AUTHORS/INSTITUTIONS:** L. Mills, C. Stevens, T. Schuler, C. Scudiere, , University of California Davis, Davis, CA;  
T. Mills, , Louisiana State University, New Orleans, LA;

**ABSTRACT FINAL ID:** M-90;

**TITLE:** Sonoelastography at The Diagnosis of Carotidynia : MRI and Strain Image Compliance with Two Case.

**ABSTRACT BODY:**

**Abstract Body:** Introduction and purpose : We aim to show that waste of time and cost can be prevented and diagnosis can be established easily for this benign and spontaneous recovered pathology.

**Material and Method :** With carotidynia prediagnosis, MRI (magnetic resonance imaging ) was done to the two cases which includes typically punctate right neck pain. In T2A axial sequence, wall thickening which surrounds bulbous with bifurcation was monitored as hyperintense. The same two cases also were evaluated with sonoelastography and colorful strain images were evaluated by comparing contralateral which is normal.

**Result :** Carotidynia is a scene which was shaped by pain, sensitivity, feel of node at localization where carotid arteries are passing at neck area and by feel of increase in pulsation. The pain may spread through non-specific areas by affecting ipsilateral eyes, mastoid area, lower jaw and head. At this pathology which is found teenager female predominance but it has no specific diagnosis during examination, MRI may be sufficient in a diagnostic sense. However, in the occasion that you can not apply this technique which is hard to apply and more expensive, diagnosis of carotidynia can easily be established with sonoelastography, too. In sonoelastography, there occurs a more thick circle-like color dispersion which represents more strict tissue content around ICA which is abnormal in accordance with the normal part.

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**ABSTRACT FINAL ID:** M-91;

**TITLE:** Screening For Occult Deep Vein Thrombosis In Hypoxic Patients Admitted ToThe Emergency Department.

Tzadok Batsheva M.D., Abd El Hadi Fuad M.D., Band Dana M.D., Shalabna Hassan M.D., Darawsha Aziz M.D.  
Haemek Medical Center,Afula,Israel.

**ABSTRACT BODY:**

**Abstract Body:** Background: Pulmonary embolism remains to be a frequently missed and deadly disease.

Objective: A pilot study to screen emergency department(ED) patients with hypoxia for occult deep vein thrombosis(DVT),and to examine the factors which may increase the yield in a screening protocol for DVT in this patient population.

Methods: ED patients who were hypoxic were screened for DVT using a two point compression bedside ultrasound.

Results: Our sample size was 82 patients. In this group only three patients were found when screened with ultrasound compression to have DVT. In the patients without DVT 4 of them were shown to have pulmonary emboli on CT angiography. In our study population of hypoxic patients in the ED 7 were shown to have thromboembolic disease. Patients with thromboembolic disease had a significant difference in calf width as compared to patients without evidence of DVT or PE, 2.42 cm +/- 1.9 cm as compared to 0.98 cm +/- 1.18 cm( p=0.04 ).Patients with PE or DVT were seen to have an overall higher level of d- dimers 2583+/- 1159 than those without 1640+/- 1570( p=0.02). D- dimers/fibrinogen ratio was also higher in the group with thrombosis 6.12+/- 2.61 compared to patients with no evidence of thrombosis 4.78+/- 7.18( p=0.04). Conclusions:

Ultrasound compression could be a screening tool for uncovering PE in hypoxic patients, preformed bedside by an emergency medicine physician.

In the future it could be decided that hypoxic patients in the ED should be screened bedside for DVT if they have a difference in calf width above 1cm or if they have a d- dimer level above 1000.

**AUTHORS/INSTITUTIONS:** B.S. Tzadok, Emergency Department, HaEmek Medical Center, Afula, Israel, ISRAEL;

**ABSTRACT FINAL ID:** M-92;

**TITLE:** Value of Ultrasound imaging of the lower limbs for diagnosis of deep vein thrombosis in the Emergency Department

**ABSTRACT BODY:**

**Abstract Body:** Introduction:

The objective of this work is to compare the findings of compression US done by hospital emergency physicians with Eco-Doppler studies performed by the Radiology Department.

Materials and Methods:

Study's Population includes patients who presented to the Emergency Department with clinical suspicion of DVT from April 1 through May 30, 2011. A systematic physical exam and a clinical test were performed followed by compression ultrasonography in the Emergency Department to determine the diagnostic probability of DVT. The Echo Doppler study was also performed in the Radiology Department to confirm or rule out DVT.

Results:

Twenty five patients with the average age of 71.84 years were evaluated. Previous medical histories included hypertension (52%), diabetes mellitus (2%) and prior vascular disease (2%). Of the patients studied, 3 (12%) had low probability of DVT by Wells Criteria, 7 (28%) had medium probability and 15 (60%) had high probability of DVT. All the patients had compression ultrasonography performed in the Emergency Department, of which 11 (44%) were positive for DVT, 12 (48%) were negative and 2 (8%) were inconclusive. Of the positive group, 9 of 11 (81%) were confirmed positive by Echo Doppler performed by expert radiologists (PPV: 81%). Of the negative group, 10 of 12 (83%) were confirmed to be negative by Echo Doppler (NPV: 83%). And of the inconclusive group, 1 (50%) was confirmed to be negative and 1 (50%) positive for DVT.

Conclusions:

In our study, we demonstrate lower extremity compression ultrasonography to be very useful in the diagnosis of DVT, having a sensitivity of 81% and specificity of 83%. The accessibility of the test along with its high sensitivity make it a useful tool in hospital and extrahospital settings. By expediting the diagnosis and reducing costs, early treatment is possible, and the rate of complications from DVT is reduced. Although our study has a small sample size and we need to validate it by continuing our work over the next few months, our preliminary findings are consistent with previous studies referred to in the bibliography.

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**ABSTRACT FINAL ID:** M-93;

**TITLE:** Head Penetrating Scissors in a Child Treated at the Department of Emergency Medicine

**ABSTRACT BODY:**

**Abstract Body:** INTRODUCTION: Accidental head trauma is exceedingly common among children, and may present as a penetrating skull injury. Transorbital intracranial injuries are associated with important morbidity and mortality. Guidelines for management are based upon adult recommendations. This is the first time a skull penetrating object was removed under general anesthesia in the emergency department. CASE REPORT: We present a 4 year old boy who accidentally fell onto the sharp side of open scissors, but got away with fear only. In the emergency department a multidisciplinary team removed the scissors under general anesthesia in the trauma room, not in the operating room. CT-scan showed bilateral orbital fractures, epidural bone fragments and air, but an intact dura. The boy awoke fully responsive and with normal eye movements within a few hours and was discharged three days later. Follow up magnetic brain imaging revealed minor frontal cortical tissue loss and gliosis. Complications are described up to nine years later. DISCUSSION: Penetrating head injuries in children are rare and outcome is reserved. Our case presented with facio-cranial introduced scissors that did not damage any vital structure. Our patient left the hospital three days after non-surgical removal of the foreign body under general anesthesia at the emergency department, followed by conservative treatment. Follow up is uncomplicated until now. This is the first time a head penetrating object in a child was removed by this type of intervention. A prepared multidisciplinary team and operating theater should be able to accept the patient in case of any complication.

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**ABSTRACT FINAL ID:** M-94;

**TITLE:** A comparative study on the sedative effect of oral midazolam and promethazine as preanesthetic medication in pediatric lumbar puncture.

**ABSTRACT BODY:**

**Abstract Body:** Background:Lumbar puncture is usually accompanied by anxiety and apprehension.This in particular is obvious in children during separation from their parents and entry to the operating room.A variety of drugs and techniques,such as parenteral or oral medication andpreanesthesia visits have been advocated in order to prevent or to minimize this problem.This study evaluated the sedative efficacy of midazolam and promethazine in children before lumbar puncture.

Methods:80 patients who had been referred as inpatients for lumbar puncture were enrolled in this study.The patients were randomly divided into two groups of 40 patients,one group received midazolam and the other group received promethazine.

Results:The results did not demonstrate significant difference between midazolam and promethazine.

Conclusion:Both midazolam and promethazine seem to be effective in patients undergoing lumbar puncture.

**AUTHORS/INSTITUTIONS:** H. Derakhshanfar, , Mofid Children Hospital, Tehran, IRAN, ISLAMIC REPUBLIC OF;

**ABSTRACT FINAL ID:** M-95;

**TITLE:** TREATMENT OF ANAPHYLACTIC AND ANAPHYLACTOID REACTIONS IN CHILDREN

**ABSTRACT BODY:**

**Abstract Body:** **BACKGROUND:** The management of anaphylactic and anaphylactoid reactions must be prompt. Being allergic to allergen from food, drugs, chemical substances or something from environment is fairly common specially in children. The key of successful treatment of anaphylactic and anaphylactoid reaction is adrenalin.

**AIMS:** Objective of this study to determine the current frequency of accidental anaphylactic and anaphylactoid reactions and exposures occurring in allergic children and identify factors associated with exposure.

**METHODS AND MATERIALS:** Statistics calculation of data for children population during 2010-2010 authors made by Sigmastat 3 for about 200 cases. Medical charts of children evaluated and diagnosed as having anaphylactic allergy reactions in pediatrics primary, secondary, tertiary care and allergy and immunology clinic in Bosnia and Herzegovina.

**RESULTS:** The severity of reaction were be within minutes of exposure to triggering substance, or delayed for up to half an hour. Classical symptoms included diffuse erythema (25%), pruritus (90%), urticaria (60%), angio-oedema (25%), bronchospasm(40%), laryngeal oedema(20%), vomiting(19%), hypotension(60%) and cardiac arrhythmias (25%) in our study during first decade of new millennium for anaphylactic reaction in children population.

**CONCLUSIONS:** The diagnostic approach to the child patient should parallel those used in diagnosis of other adverse reactions to allergens. The exact cause of someone developing an anaphylactic allergy reaction is unknown.

Longitudinal follow-up of the effect of antiallergic therapy on children and satisfaction with therapy of these parents and their families is currently underway.

**KEY WORDS:** Treatment, Anaphylaxis, Children, Diagnostic.

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**ABSTRACT FINAL ID:** M-96;

**TITLE:** Epidemiological Assessment Of Cases Of Children Burned In Eskisehir

**ABSTRACT BODY:**

**Abstract Body:** BACKGROUND: Burn is a major public health problem and extremely complex and require knowledge of treatment, nutrition, immunology and psychological issues. To explore the epidemiology of acute childhood burn injuries in a tertiary burn center and burn intensive care unit, a population-based cross-sectional survey was conducted between August 2009 and July 2010. We aimed to estimate the incidence, outcomes and length of hospital stay in the 0 to 18 year old population.

METHODS: We collected data about all children who suffered a burn injury requiring hospital admission between August 2009 and July 2010. Age, sex, cause etiology, burn degree, length of hospital stay, morbidity and mortality and the relationship between these parameters were retrospectively analyzed.

RESULTS: The distribution of burns according to gender remained almost constant with a clear male predominance. Of the 109 patients, the mean incidence of male gender among burn patients was 55,05 %. The mean age was 3.8 years. As the infants up to 2 years old comprised to the largest age group, with a mean incidence of 36.6% of cases are in this group of the burn patients. The commonest etiologic factor was hot liquids (85,32%). The upper extremities were the most affected sites in these cases and the mean total burn surface area was %25,68. The rate of degree of burn upper 20 % was 22.8 %. Mean length of hospital stay 6.09 days. The mortality rate was 1.83 %.

CONCLUSIONS: Epidemiological surveys provide objective information on hazardous agents and on the settings in which burns are most likely to occur. It is suggested that the findings of this study would be used as a basis for developing targeted

KEY WORDS: Burn injuries, childhood, epidemiology

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**ABSTRACT FINAL ID:** M-97;

**TITLE:** Fatal Cyanide Poisoning In a Children Caused By Apricot Seed

**ABSTRACT BODY:**

**Abstract Body:** Aim: Unlike western world, cyanide poisoning in children in developing countries is mainly related to ingestion of cyanogenic foods. Here, we report a fatal cyanide poisoning case presented with sudden onset unconsciousness, seizure, and metabolic acidosis caused by apricot seed ingestion.

Case: 28 month old girl presented to emergency department with sudden onset unconsciousness and seizure when she was eating apricot approximately ten apricot seeds. Glasgow coma score was four. She was transported to intensive care unit and mechanical ventilation started. Gastric lavage performed and pieces of apricot seeds were observed. On laboratory investigation blood gas analysis revealed that pH: 6.8,  $p\text{aO}_2$  80 mmHg,  $\text{PaCO}_2$  15 mmHg,  $\text{HCO}_3^-$  5.5 mmol/L, Base excess -29.6 mmol/L. Plasma lactate level measured as 10 mmol/L. Plasma glucose level was 290 mg/dl. With help of apricot seed eating and laboratory findings, the patient was diagnosed as acute cyanide poisoning. After collecting whole blood sample for measurement of cyanide level, Cyanide antidote dicobalt edetate (Kelocyanor) was given ten hours after presentation to hospital. Repeated arterial blood gas analysis showed that the difference between arterial and venous  $\text{PO}_2$  levels was 8 mmHg. The result of whole blood cyanide level was more than 3mg/L at the 4th hour of presentation. Dicobalt edetate was repeated. The result of cyanide level was 1 mg/L at the 20th hour of presentation. She died on the 22th day hospitalization following supportive care in intensive care unit. Conclusion; Cyanide poisoning should be considered in patients who presented with metabolic acidosis characterized by high levels of lactate level and venous  $\text{pO}_2$ .

Key words: Cyanide, food, children

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**ABSTRACT FINAL ID:** M-98;

**TITLE:** Clinical Effects of Acute Desvenlafaxine (Pristiq®) Ingestion by Young Children

**ABSTRACT BODY:**

**Abstract Body:**

Background: Desvenlafaxine (Pristiq®) is a serotonin-norepinephrine reuptake inhibitor approved by the FDA in 2008 for the treatment of depression in adults. It is also under review as the first non-hormonal based treatment for the vasomotor symptoms associated with menopause. In adults, its major adverse effects are nausea, dizziness, insomnia, and constipation. However, there are no published studies of its adverse effects on the pediatric population.

Objective: To study the clinical effects of accidental desvenlafaxine ingestion by young children.

Methods: A retrospective, observational study of single substance ingestion of desvenlafaxine by children under 6 years from January 2008 through March 2010. This chart review included all poison center calls in one state for these children who were followed to a known outcome.

Results: There were 56 children who met the inclusion criteria. They were 11 months to 6 years in age. Ingestion doses ranged from 25 mg to 1000 mg. Fifty children (89.3%; 95%CI: 78.5%-95.0%) were asymptomatic. The only symptom seen in more than one child was nausea/vomiting (5.3%). Four children each had one of the following symptoms (1.8% each): dry mouth, bradycardia, drowsiness, and somnolence. Twenty-eight (50.0%, 95%CI: 37.3% - 62.7%) were managed at home with observation. The other half were managed at health care facilities. Of those treated in health care facilities, 14 children were given activated charcoal. Only 8 (14.3%; 95%CI: 7.4%-25.7%) were admitted overnight and discharged with no additional treatment within 24 hours.

Conclusions: This is the first study of ingestion of desvenlafaxine by young children. Only about 10% of these children had any symptoms and all were mild or moderate. All children had good outcomes (100%; 95%CI: 93.5%-100%). However, low numbers, inconsistent follow up, and reliance on caller information limit this study. This small study suggests that in the ED most of these patients may be safely discharged home without treatment. More studies are needed to determine appropriate emergency management of ingestions in this age group.

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**ABSTRACT FINAL ID:** M-99;

**TITLE:** Snakebites In The United States Pediatric Population: 2000-2009

**ABSTRACT BODY:**

**Abstract Body:** Background: Many of the 10,000 victims of snakebite each year in the US are under 18 years of age. Management of this population has not been studied as extensively as adults. Details specific to this population could affect their emergency treatment. Objectives: Our goal was to define the trends and characteristics of a large pediatric snakebite victim population over a 10 year period. Methods: Observational study of telephone calls (with follow-up when possible) to all US poison centers (National Poison Data System) for snakebite victims under 18 years from 2000-2009. Results: There were 20,285 pediatric snakebites (31.4% of all snakebites). The number of bites/year decreased 23.7% from the high of 2,323 in 2000 to the low of 1,772 in 2009. For the entire study period, 69.8% were male. Their ages were 0-2 years (2.8%), 3-5 (18.9%), 6-12 (45.6%), 13-17 (29.7%), and unknown (3.0%). As expected, 74.1% of all bites occurred during the 5 months from May through September. July had the largest number of bites (16.8%), and December had the fewest (1.3%). Every State reported at least one pediatric snakebite during the study period. Florida (11.9%), Texas (10.1%), and California (5.5%) had the most, and North Dakota (0.1%), Alaska, and Hawaii had the least. The type of snake was recorded as non-venomous (39.4%), venomous (29.7%), and unknown (30.9%). Copperhead snakes were the leading identified venomous species at 11.0%. Only 10.4% were rattlesnakes, 0.9% were coral snakes, and 0.6% were exotic snakes. Only 1.8% had major clinical effects, 20.8% had moderate effects, 62.4% had minor effects, 5.7% had no effects, and 9.3% had unknown effects. Over the 10 year study period there were 3 pediatric deaths. Conclusion: This is the largest study of pediatric snakebite victims in the USA. Males living in the southern US during the summer make up the highest risk group. Fortunately, despite appropriate parental fears, major effects and death are rare. The chief limitation of this study is the dependence on the accuracy of the poison center charts based on caller information. This study reveals the characteristics and trends of pediatric snakebite victims.

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**ABSTRACT FINAL ID:** OS35-G;

**TITLE:** Low-cost Model for Tube Thoracostomy Training

**ABSTRACT BODY:**

**Abstract Body:** **OBJECTIVE:** Procedural training is an essential part of emergency medicine training but many of the simulation models available are cost-prohibitive for underfunded and international training programs. We developed a novel low-cost model using readily available products to create a task trainer which can provide simulation training for tube thoracostomy. This model can be reproduced easily and cheaply and expands our ability to provide simulation training for emergency medicine teaching in resource-limited programs, both in the US and internationally.

**METHODS:** Six EM physicians with experience in tube thoracostomy and experience with high-fidelity mannequin training models collaborated to produce a non-living animal model for tube thoracostomy. A chicken-wire frame was used for structural stability. One side of the mesh was cut out with wire cutters and across that gap a full rack of animal ribs with skin and subcutaneous tissue left intact was attached. It was secured in place with bailing wire punched through the rib space and wound around the wire frame supports. This model allowed an observer to be placed on each side of the chest wall to assess technique, and also allowed for multiple attempts on a single model.

**RESULTS:** All of the physicians involved in developing this model felt that the final product provided an excellent facsimile of the real-life experience and a valuable training model. The skin/subcutaneous tissue layer was felt to be an excellent feature and closely simulated human patients. The model was also very durable and stood up to multiple tube attempts without degrading. **CONCLUSIONS:** For a cost of less than \$20 USD per task trainer, this model provides a realistic and effective training experience. The low cost point not only represents savings for a teaching program, but also increases the number of programs that can provide simulation training. This preliminary study suggests that a formal, randomized comparison of this model against currently used task trainers is warranted, and may in fact help establish this low-cost model as the trainer of choice for resource-limited and international emergency medicine training.

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