

suggested as potential markers of these impairments in clinical studies. No study has examined if serum biomarkers could contribute to the diagnosis of frailty in seniors with minor injuries. **Objectives:** To explore the association between several serum biomarkers (Ferritin, Creatinine, Vitamin D, Albumin, Glucose, Estradiol, Testosterone, Thyroid Stimulating Hormone (TSH), Insulin-Growth Factor (IGF-1) C-reactive protein (CRP)) and frailty level in seniors treated in emergency department (ED) for minor injuries. **Methods:** Cross-sectional study within the larger CETI cohort. It includes 142 seniors discharged home from 4 EDs after treatment of minor injuries. Their frailty status was measured by the Canadian Study of Health & Aging-Clinical Frailty Scale (CSHA-CFS). Biomarkers were obtained from blood samples. Pearson's correlations ( $r$ ) were performed to examine the relation between serum biomarkers and frailty levels. Partial correlation controlled for age and sex, were also performed. **Results:** Due to inclusion criteria, no patient was severely frail. Overall, these preliminary analyses seem to indicate that robust patients tended to have lower Glucose & Vitamin D levels ( $-0.264 \leq r \leq -0.230$ ;  $p < 0.05$ ), higher Estradiol ( $r = 0.230$ ;  $p < 0.05$ ) & Testosterone ( $r = 0.295$ ;  $p < 0.05$ ), while prefrail/frail patients tended to have higher Glucose & Vitamin D levels ( $0.235 \leq r \leq 0.238$ ;  $p < 0.05$ ), lower Estradiol levels ( $r = -0.235$ ;  $p < 0.05$ ) & more elevated Ferritin levels. Due to the small number of patients, controlling for age and sex lead to non-significant results of the most associations. **Conclusion:** Pre-frail/frail seniors presenting to EDs with minor injuries tend to have higher Ferritin, Glucose & Vitamin D levels as well as lower sexual hormones levels than robust individuals. Larger samples are needed in order to elucidate which biomarkers could be most useful to identify frail seniors needing clinical attention and to assess a possible association with mobility impairments in this population.

**Keywords:** functional decline, biomarkers, frailty

#### P008

##### Addressing chronic pain and problematic substance use of opioids in the emergency department: can a comprehensive framework for care work?

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**Introduction:** Chronic pain and substance misuse are complex chronic illness that are subject to prejudice, misinterpretation and cultural biases. They require a broad, multi-disciplined approach if they are to be effectively managed. Barrier's to effective care in the emergency department include our reliance on pain scales alone to effectively triage and manage chronic pain, differing philosophy's and attitudes regarding the appropriate use of high risk pain pharmacology including opioids and confusing classifications systems used to describe pain and problematic substance use which can often lead to further stigmatization and over medicating. **Methods:** The charts of thirteen patients with complex pain and problematic substance use who had more than 360 visits to a regional emergency department in one year were reviewed retrospectively and data collected regarding frequency of visits and disposition after the implementation of a comprehensive pain and addiction strategy from April 2011 to August 2015. **Results:** In the first year of implementation there was a 70% drop in the frequency of emergency department visits. Five patients (38%) required a comprehensive pain plan. Six agreed (46%) to a direct referral to our mental health, addiction and chronic pain services. Two patients (15%) were lost to follow-up. Review of the electronic record to track patient visits to provincial emergency departments did not show an increase in visits to other facilities within the province. Review of visits in 2015 show a 97% drop in the frequency of visits. Family Physicians in the

community did not report an increase in the frequency of patient visits as a direct result of the implementation of this strategy nor was there an increase in complaints to administration regarding ineffective pain management. **Conclusion:** Although survey numbers are low it suggests that a framework for the management of complex pain and substance use disorders can be successfully implemented in the emergency department improving timely access to appropriate management and resources for patients based on best practice to address their complex needs.

**Keywords:** complex pain, substance use disorders, comprehensive care plan

#### P009

##### Violence against health care professionals in Karachi: results from a mixed methods study

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**Introduction:** The right to live is the supreme human right and according to Article 3 of the Universal declaration of human rights everyone has a right to life, liberty and security. In Karachi, Pakistan huge numbers of health care professionals (HCP) have been subjected to violence inclusive of money extortion, kidnapping, mental & physical torture, murders etc. A recent study from Karachi's four major hospitals reported that 72.5% of HCP have experienced abuse (verbal and physical) in the past 12 months. The goal of this study was to develop strategies for preventing violence against health care after collecting baseline data. **The objectives of the study were to:** Identify the magnitude, threshold and impact of violence against HCPs. **Methods:** This was a mixed methods study design with a QUAN-QUAL approach. Structured questionnaire was used after pilot testing and filled by the surveyors. Focus group discussion and In-depth interviews were conducted with HCPs, NGOs, Law enforcement agencies, ambulance services, hospital administrators and LHW programs. Frequencies and proportions were compared for different cadres of HCPs for the quantitative data analysis. Thematic content analysis with inductive and deductive reasoning was used for analysing qualitative data. **Results:** Data on 822 HCPs revealed that 33% had faced violence and 49% had experienced it, 89% was verbal and 43% was physical abuse, 2% had died and 22% were injured. Ambulance services and physicians were the most common victims of violence. The main reasons were grouped as institutional, behavioral (victims and perpetrators) and general situation of the city. There is high acceptance of violence among HCPs and lack of training in dealing with it was the most common reason given. Sequelae included effects on victim, family, institution and the reporting agencies. The final paper will have complete details on the baseline and the recommendations proposed by the stakeholders. **Conclusion:** Violence faced by HCP's is a multifactorial complex issue. There is a dire need to design interventions which can help in addressing the behavioral, Institutional and sociopolitical factors promoting violence among HCP's. The interventions based on recommendations by the respondents have been developed and implementation has started as a pilot in the city of Karachi.

**Keywords:** violence, health care professionals, ambulance services

#### P010

##### Use of the emergency department by refugees under the Interim Federal Health Program

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