campaigns addressing ED care improvements represent. This may contribute to a perceived lack of uptake or support for these initiatives. Further exploring EPs perceptions of these campaigns has the potential to improve EP engagement and influence the language utilized by these programs.

Keywords: emergency department, unnecessary care, qualitative

P073

Single and dual vs. standard triple agent regimens for HIV post-exposure prophylaxis in the sexual assault victim population

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Introduction: Although Tenofovir/Emtricitabine was approved in 2012 as a single-agent regimen for pre-exposure prophylaxis, there have been no studies to our knowledge that demonstrate the efficacy of single and dual agent regimens in post-exposure prophylaxis. Our goal was to compare outcomes of post-exposure prophylaxis with single and dual agent regimens versus triple therapy in victims of sexual assault. **Methods:** This was a before and after cohort study of patients seen by the Sexual Assault and Partner Abuse Care Program (SAPACP) at the Ottawa Hospital. We reviewed charts of patients seen by the SAPACP from Jan. 1-Dec. 31 2013, when triple therapy was usual care, and Jan. 1-Dec. 31 2015, after the introduction of alternative regimens. Patients who were deemed high risk or who did not get initial treatment at the SAPACP were excluded. Our primary outcome was the number of patients who completed the entire 28-day post-exposure prophylaxis regimen. Secondary objectives were to assess HIV seroconversion rates and patient reported side effects. **Results:** Six hundred-thirty charts were reviewed, and 429 were included in the study. Baseline characteristics were similar between the two years. We found no significant difference in completion rates of HIV post-exposure prophylaxis between the two cohorts (50.5% vs. 51.6%). However, we did note a decrease in reported side effects in the 2015 cohort (72.2% vs. 17.6%, $p < 0.0001$). In our secondary analysis, we compared all patients in all years who received triple therapy ($N = 128$) versus those who received alternative single or dual agent regimens ($N = 47$). We found that the alternative regimen group had a higher completion rate (66.0% vs. 42.2%; $p = 0.03$), and a dramatic decrease in rate of reported side effects (19.1% vs. 53.9%; $p < 0.0001$). Specifically, we saw decreased reported rates of nausea (12.8% vs. 36.7 %), constipation (0% vs. 7.9%), diarrhea (2.1% vs. 21.1%), mood changes (0% vs. 10.9%), headache (2.1% vs. 16.4%), and fatigue (6.4% vs. 26.6%). There were no HIV seroconversions in either group. **Conclusion:** Our results suggest that single and dual agent HIV post-exposure prophylaxis regimens are better tolerated by patients and associated with higher rates of completion than triple therapy, and should be considered as stand-alone therapy in the sexual assault victim population.

Keywords: human immunodeficiency virus, post-exposure prophylaxis, assault

P074

Clinician gestalt in the evaluation of pulmonary embolism risk factors: the CEPERF study

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Introduction: Pulmonary Embolism (PE) is a difficult to diagnose presentation associated with significant morbidity and mortality. Despite development of risk stratification tools (RST), physician gestalt continues to play a large role in the diagnostic evaluation of PE. Implicit in this gestalt is the evaluation of PE risk factors (RF). It is unknown, however, if physicians are similar and accurate in their assessment of known PE RF. **Methods:** An online survey presented paired comparisons ($n = 55$) of 11 known PE RF to active Emergency Physicians ($n = 20$), Family Doctors ($n = 11$), and Residents (Family Medicine [$n = 20$]; Emergency Medicine [$n = 5$]). The Bradley-Terry Model converted the paired comparisons to rank order lists for the cohorts and these lists were compared. The perceived efficacy and use of RST and gestalt was also assessed across the cohorts. **Results:** The response rate was 72%. Emergency Physicians had the highest perception of gestalt as an effective method of risk stratification (7.4 ± 1.4 out of 10) while Family Medicine Residents had the lowest (5.1 ± 1.9). More than 95% of Emergency Physicians and Residents employed RST (PERC and Wells) compared to 46% of Family Physician respondents. Those who used RST utilized the tools in the majority of their clinical encounters (>75% of the time). There was good agreement between the cohorts in regards to their rank order lists (Tau-b $\geq$ 0.71). Age was identified as a RF which was consistently ranked lower than literature reported values amongst the cohorts. **Conclusion:** Physicians in various practice settings and levels of training rank PE risk factors similarly when forced to compare them. There are important RF, most notably age, which were identified in the current study that were consistently undervalued. This finding may highlight how RST are shaping perceptions of PE RF through their use and how age as a PE RF may warrant more attention in education and clinical assessments.

Keywords: pulmonary embolism, risk factors, gestalt

P075

Constructing entrustment: understanding clinical supervisor dynamics in the oral case presentation

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Introduction: The Oral Case Presentation (OCP) has been described as a unique form of inter-physician communication integral to the practice of medicine and represents the foundation of trainee-supervisor interactions. In recent years, entrustment has been identified as an essential element of trainee supervision and learning. Despite the growing body of knowledge concerning entrustment in medical education, the influence of trust on the educational dynamic surrounding the OCP remains unknown. The objectives of this study were to (1) describe the complex nature of the OCP from the perspective of the supervisor and (2) explore the central role the OCP plays in the dyadic relationship between supervisor and trainee during the delivery of patient care. **Methods:** Using a constructivist grounded theory approach, semi-structured interviews were conducted from 2015 to 2016 with a purposive sample of attending Emergency Medicine (EM) physicians from the University of Ottawa. Transcripts were reviewed independently by two investigators using line-by-line coding and constant comparative analysis. Emerging concepts were coded and key themes identified through consensus. Theoretical sampling occurred until thematic saturation was reached. **Results:** Twenty-one attending EM physicians participated in this study (71% male). The mean number of years in practice was 14. The mean percentage of shifts with a trainee assigned was 86%. Factors relating to entrustment were identified as the principal influences on both the content of the OCP and decisions relating to trainee supervision during the OCP process. These factors included the trainee level, the trainee-supervisor relationship, the context and the task. The OCP was also found to play several important roles as supervisors balanced the delivery of patient care and trainee education. These roles were related to communication, teaching and trainee assessment. **Conclusion:** The OCP

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represents a core activity within the supervisor-trainee relationship in which trust plays a central role. Clinical supervisors value the OCP as a form of authentic assessment of skills and perceive it to be a key determinant in making entrustment decisions. Future studies designed to evaluate the utility of the OCP as an educational tool should consider entrustment as an essential element.
Keywords: entrustment, oral case presentation

P076

Calcium, magnesium and phosphorus dosing: impacts and relevance in the emergency department

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Introduction: With rising health care costs impairing access to care, the judicious use of diagnostic tests has become a critical issue for most jurisdictions. Among tests regularly performed in the emergency department (ED), calcium (Ca), magnesium (Mg) and phosphorus (P) laboratory testing represents an annual expenditure of more than $4 million for the Québec health care system. We then sought to determine the best indications for ordering these serum levels by identifying patient risk factors predicting abnormal results. **Methods:** We are conducting a retrospective cohort study in two academic hospitals of Québec City, one providing acute general care and the other providing specialized care to oncologic and nephrologic patients. We included 1000 patients who had serum Ca and/or Mg and/or P levels prescribed by an emergency physician between January 1st 2016 and May 1st 2016. We are collecting demographic (e.g. age) and clinical (e.g. comorbidities) characteristics identified from literature review as potential explanatory variables of an abnormal serum level. Predictive models of a positive test result will be derived from logistic regressions. **Results:** We have evaluated 143 patients. ED prevalence rates of hypo- and hyper-calcemia (10.1% and 4,3%), hypo- and hyper-magnesemia (13.0% and 7,2%), hypo- and hyper-phosphatemia (9.5% and 13,9%) were similar to those reported in literature. Preliminary bivariate analysis ($p < 0.05$) have shown that, for patients who had serum Ca/Mg/P levels prescribed, one in four complained of weakness, one in five complained of abdominal pain and one in five presented on physical examination an abnormal mental status. Acute and chronic renal failure appears to be a strong predictor of anomalies of any of those electrolytes. Neoplasia, metastasis, hallucinations, bone pain and confusion are more specifically associated with hypercalcemia. Use of corticosteroids is associated with hypocalcemia. **Conclusion:** Our bivariate analyses have identified potential risk factors of abnormal Ca/Mg/P results. Multivariate logistic regressions will be conducted on the complete planned cohort to further test these preliminary results.
Keywords: electrolytes, laboratory testing, emergency department

P077

Observance des médecins face aux indications de tomodensitométrie cérébrale chez les patients ayant subi un TCC léger et facteurs associés à la non-observance

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Introduction: Lors d'un traumatisme cranio-cérébral léger, les complications hémorragiques sont rares et ne nécessitent qu'exceptionnellement une intervention neurochirurgicale (<1%). Dans le but de limiter les radiations inutiles et les coûts, *Choosing Wisely* s'est récemment positionnée avec CAEP afin de recommander l'usage de la *Canadian CT Head Rule* (CCHR) suite un à TCCL. L'objectif principal de cette étude vise à évaluer l'observance des médecins d'urgence concernant l'utilisation de la règle CCHR chez les patients ayant subi un TCCL. L'objectif secondaire consiste à identifier les facteurs associés au risque de non-observance dans cette situation clinique. **Methods:** Des analyses univariées et multivariées ont été effectuées sur les données de 854 patients ayant subi un TCCL et ayant été recrutés dans les 24 heures suivant leur visite dans un centre tertiaire québécois de traumatologie. Des analyses descriptives ont permis d'estimer la proportion de médecins d'urgence ayant utilisé les critères de la règle CCHR et ceux n'ayant pas été observants. Nous avons ensuite évalué les facteurs potentiellement associés au risque de non-observance. **Results:** 62.9% des patients avec TCCL ont subi une TDM au département d'urgence. La non observance globale des médecins face à la règle était de 29.9%. De plus, la proportion de TDM effectuée sans indication selon la règle est égale à 20% (177/854). Les facteurs suivants semblent associés au risque de surutilisation de la TDM: la prise d'acide acétylsalicylique (RR = 1.8, [IC 1.3-2.6]), la présence de céphalée décrite par le patient au moment de l'évaluation (RR = 1.5, [IC 1.2-1.9]), et l'âge (55-64 ans versus moins de 55 ans) (RR = 1.6 [IC 1.2-1.9]). **Conclusion:** L'évaluation de l'observance des médecins face à ces recommandations, combinée à l'identification des facteurs en cause lors de la non-observance favoriseront une meilleure orientation des interventions de transfert de connaissances dans le futur en plus d'améliorer la qualité des soins et l'efficience des ressources.
Keywords: mild traumatic brain injury, Canadian CT Head Rule, compliance

P078

Derivation and validation of a non return to work predictive model three months after a mild traumatic brain injury

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Introduction: Mild traumatic brain injury (mTBI) is a common problem and until now, ED physicians don't have any tool to predict when the patient will return to work. The purpose of this study is to develop and validate a clinical decision rule to identify the ED patients who are at risk of non-return to work or to school three months after a mTBI. **Methods:** Patients were recruiting in five Level I and II Trauma Centers ED in the province of Québec. All patients were referred for a systematic telephone follow-up after three months. Information about their return to work/school, partial or complete, was collected. Log binomial regression was used to develop a predictive model and the validation of this model was performed on a different prospective cohort. **Results:** 13,7% of the patients did not return to work/school at three months. The final model was derived from a prospective cohort of 398 patients and included three risk factors: motor vehicle accident (2 points), loss of consciousness (1 point) and headache during the emergency department assessment (1 point). With a one-point threshold, this model has a sensitivity of 97% and a negative predictive value (NPV) of 98%. However, the specificity is only 23% and the positive predictive value (PPV) is 17%. The area under the curve is 0.786. Validation of the model was performed with a new prospective cohort of 517 patients, and demonstrated a sensitivity of 86% and a NPV of 91%. **Conclusion:** Although this model is not very specific, its high sensitivity and NPV indicate to the clinician that mTBI patients who don't have any of the three criteria are at low risk of prolonged work stoppage after their trauma.
Keywords: mild traumatic brain injury, predictive model, non-return to work

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