

**Keywords:** frailty, minor injury, functional decline

#### MP017

##### Impact of physician payment mechanism on wait times and ED length of stay

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**Introduction:** Vancouver Coastal Health (VCH) emergency physicians have been on contract based funding models for two decades. On October 1, 2015, physicians at one hospital (SPH) switched to fee-for-service (FFS) payments. Conventional wisdom is that FFS physicians are motivated to see more patients quickly and achieve higher throughput. Our hypothesis was that FFS payment would reduce patient wait times. **Methods:** This interrupted time series analysis with concurrent control was performed in VCH Region, where there are two tertiary EDs. During the 20-week study period (July 15-Nov 30), VGH remained on contract, while SPH converted to FFS (the intervention). VCH administrative data was aggregated by week. Our primary outcome was median wait time to MD. Secondary outcomes were ED LOS and left-without-being-seen (LWBS) rates. **Results:** Interrupted time series plots will be presented for the data. Data from 67,214 ED visits were analyzed (31,733 SPH, 35,481 VGH). Figure 1 shows that baseline wait time was 74 minutes at the control and 53 minutes at the intervention site. During the pre-intervention period, there was a non-significant downward trend of 0.4 minutes per week at the intervention hospital relative to control ( $p = 0.26$ ). After FFS conversion, there was a 4.1 minute increase in wait time at the control site ( $p = 0.18$ ), and a significant downward trend of 1.4 minutes per week ( $p = 0.001$ ). After FFS conversion, wait times at the intervention site increased by 4.8 minutes more than control ( $p$ -value for the difference = 0.27), and the wait time trend increased significantly by 1.3 minutes per week relative to the expected counterfactual trend ( $p = 0.02$ ). Baseline EDLOS for discharged patients was 227 minutes at the control hospital and 193 minutes at the intervention site. There were similar pre-intervention LOS increases at both hospitals. Post-intervention, both sites saw significant increases in EDLOS, followed by a similar downward trends of -2.68 minutes per week ( $p = 0.001$ ). Baseline LWBS rate was 3.86% at the control hospital and 3.56% at the intervention site. Pre-intervention trends, and post-intervention level/trend changes did not differ by site. **Conclusion:** Conversion to FFS payment was associated with an increase in wait time trend of 1.3 minutes per week relative to control. There were no significant changes in EDLOS or LWBS rates. In this preliminary analysis, FFS payment had little effect on wait times or patient throughput.

**Keywords:** physician compensation, efficiency, fee for service

#### MP018

##### Exercise prescription by Canadian emergency medicine physicians

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**Introduction:** Health promotion and disease prevention have been increasingly recognized as activities within the scope of emergency medicine. Exercise prescription by physicians has been shown to improve outcomes in obesity, cardiovascular disease, and many other diseases. An estimated 600,000 Canadians receive the majority of their care from emergency departments (ED), representing a substantial opportunity for health promotion. Our study examined the frequency of exercise

prescription by emergency physicians (EPs) and determined factors that influence decisions to prescribe exercise. **Methods:** A national, confidential 22-item survey was distributed to Canadian EPs via email by the CAEP survey distribution protocol in November/December 2015. Demographics, exercise prescription rates and self-reported exercise habits were collected. **Results:** A total of 332 EPs responded. 92.4% of EPs reported being at least moderately active. 62.7% of EPs often or always counsel their patients about preventative medicine (smoking cessation, drug and alcohol use, diet and safe sex). However, only 23.8% often or always ask about their exercise habits. Even fewer (12.7%) often or always prescribe exercise. Training background significantly predicted level of comfort prescribing exercise. CCFP trained EPs were 5.1 ( $p = 0.001$ ) times more likely than trained EPs to respond 'yes' they feel comfortable prescribing exercise, and 3.7 ( $p = .009$ ) times more likely to respond 'sometimes'. CCFP (EM) trained EPs were 3.5 ( $p < 0.001$ ) times more likely than trained EPs to respond 'yes' they feel comfortable prescribing exercise, and 2.0 ( $p = .031$ ) times more likely to respond 'sometimes'. 76.1% of respondents believe that other EPs rarely or never prescribe exercise. Of respondents, only 36% feel comfortable prescribing exercise. The majority of EPs (73.4%) believe that the ED environment did not allow adequate time for exercise prescription. **Conclusion:** The majority of EPs counsel their patients regarding other forms of preventative medicine but few prescribe exercise to their patients. Available time in the ED was cited as a significant barrier to exercise prescription. CCFP trained EPs are more comfortable prescribing exercise, suggesting that their training may better educate and prepare them to counsel patients on exercise compared to trained EPs. Further education may be required to standardize an approach to prescribing exercise in the ED.

**Keywords:** exercise, health promotion, education

#### MP019

##### Systematic review of the management of lateral epicondylitis using transdermal nitroglycerin

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**Introduction:** Lateral epicondylitis (LE), also known as tennis elbow, is an overuse-underuse tendinopathy originating from the forearm extensor tendons of the elbow. An emerging therapy for the treatment of LE is the use of transdermal nitroglycerin (NTG) patches for pain relief and improved function. Our systematic review assesses 18 to 65 year old patients with clinically diagnosed LE and no structural damage or longstanding elbow injury to determine if transdermal NTG patches provide improved short term and long term pain relief as well as improved function in comparison with placebo. **Methods:** We included randomised controlled trials (RCT's) of NTG patch use versus placebo for the treatment of LE. Prospective comparison studies were also eligible for assessing the long term pain relief of NTG patch use. We performed a literature search using MEDLINE, EMBASE, SportDiscus and the Cochrane Database of Systematic Reviews. English language articles were retrieved for review up to November 2015. Risk of bias within the studies was assessed regarding randomisation, allocation sequence concealment, blinding and selective outcome reporting. **Results:** Three RCT's were included that compared transdermal NTG patch use (two studies with 1.25mg/24h and one study comparing 0.72, 1.44 and 3.6mg/24h) versus a placebo to treat LE. One prospective comparison study of five years duration was included as a follow-up to one of the included RCT's to assess pain and function five years after the discontinuation of therapy. Data was not pooled because of heterogeneity in study methods and outcomes. The use of transdermal NTG patches provided short term pain relief (2-6 weeks for dosing of 0.72mg/24h or 1.25mg/24h) compared with placebo as suggested by three RCT's. Long term pain relief was improved by NTG patch use compared with placebo