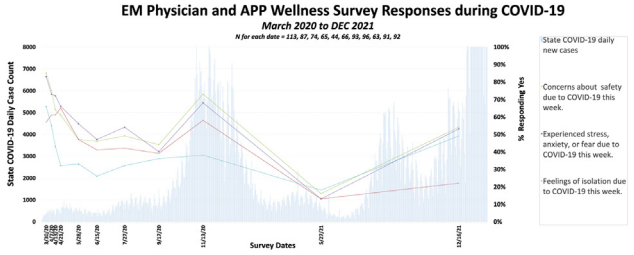
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

trends [Figure 1]. However, burnout increased over the 21-month period, ranging from 20 to 52% by December 2021 ($p<0.05$). Physicians and APPs were at significantly greater risk of burnout if they experienced an 'impact on their ability to care for children or dependents' (OR 3.32; 95% CI 2.15-5.15), 'strain on relationships' (OR 2.39; 95% CI 1.69-3.38), 'feelings of isolation' (OR 2.26: 95% CI 1.61-3.21), or 'symptoms of stress, anxiety, or fear' (OR 1.97; 95% CI 1.39-2.83). Mid-career physicians and APPs had greater odds of screening at risk on the WBI (burnout, severe fatigue, work-life integration) than their early-career peers (OR 1.27; 95% CI 1.15 - 1.4).

Conclusion: This 21-month longitudinal study adds to the literature by describing the prolonged wellness impact of the COVID pandemic on emergency physicians and APPs in the Midwest. Despite being resilient at baseline, the vast majority reported concerns for safety, stress, anxiety, fear, and isolation early in the pandemic and with subsequent surges. Mid-career physicians and APPs were identified as those most at-risk for burnout, which may be an important group to target wellness interventions. Burnout increased during the study period, implying that it is a culmination of insults over time. This data can be used to identify factors placing emergency physicians and APPs at greater risk for negative wellness outcomes and inform strategies to support our frontline team.



No, authors do not have interests to disclose

222 ED-ACT, Examining D-dimer and Empiric Anti-coagulation in COVID-19 Related Thrombosis

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Objective: Thrombosis is thought to occur frequently in the setting of acute SARS-CoV-2 infection. We aimed to elucidate the relationship between macro/micro vascular thrombosis, D-dimer levels, and empiric anticoagulation in acute COVID-19.

Methods: This was an exploratory prospective, single-site, observational study. Adult emergency department patients with COVID-19 requiring hospitalization received a point-of-care lower extremity ultrasound. Relevant clinical and demographic data were obtained by review of the electronic medical record. The primary endpoint was venous thromboembolism and associated D-dimer level. Secondary endpoints included rates of micro and macro thrombotic complications as well as empiric anticoagulant use.

Results: Between January 13th and April 12th 2021, 52 patients were enrolled. Median age was 55, 52% of patients were male. Median D-dimer at ED presentation was 650 ng/mL (range 250 to 10,000 ng/mL), among patients with negative duplex studies. One patient had a confirmed pulmonary embolism with a D-dimer of 5,082 ng/mL. During hospitalization, 18 patients underwent 20 studies assessing for VTE yielded one DVT event. Among patients with negative studies median D-dimer was 1,246 ng/mL (range 329-10,000 ng/mL). Two patients experienced microvascular complications. Seven patients were started on empiric full dose anticoagulation, with one non-severe bleeding event.

Conclusion: While VTE remains a major concern amongst patients with COVID-19, the normal D-dimer cut off of >500 ng/mL likely should not be used as a trigger to initiate further VTE workup. Additionally, mildly to moderately elevated D-dimer did not correlate strongly with microvascular complications and may not be relevant in the decision to initiate empiric full dose anticoagulation.

· Classic D-dimer cut offs are likely unreliable in acute COVID-19.

· Significantly elevated D-dimer in acute COVID-19 may be helpful in triggering a VTE workup.

· Without evidence of VTE, D-dimer alone should not be used to initiate empiric AC in COVID-19.

· Future research should focus on how best to utilize D-dimer for risk stratification in acute COVID-19.

No, authors do not have interests to disclose

223 A Multi-Modal Approach to Nerve Block Teaching

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Study Objectives: Ultrasound-guided regional anesthesia (UGRA) is quickly evolving into a pain treatment modality of choice due to its ability to provide effective analgesia without the use of opioids. While UGRA has become part of the training curriculum for most emergency medicine residents, comprehensive educational initiatives are still lacking. Our primary objective is to increase EP knowledge and confidence in performing ultrasound guided regional anesthesia (UGRA) by implementing a multi-modal nerve block teaching approach. Our approach includes a nerve block meat model workshop for both faculty and residents, posted QR codes containing procedural information, pre-assembled nerve block kits and bi-weekly nerve block posts on our educational platform. Our secondary objective is to increase the overall number of nerve blocks performed in the ED.

Methods: 11 residents participated in a nerve block workshop at a single academic teaching hospital. The workshop involved a lecture, landmark identification on models and hands-on practice on meat models which accurately simulated fascial hydrodissection under ultrasound. Knowledge and confidence were assessed on a survey pre- and immediately post-workshop. Surveys were repeated at 3 months post workshop to assess the number of nerve blocks performed in the ED.

Results: Prior to the nerve block workshop and our multi-modal approach, only 2 residents (16.7 % of the residents) had previously performed a fascia iliaca block and none of the residents had performed a serratus anterior block. Most of the residents responded "not confident at all" when asked about confidence level performing a fascia iliaca nerve block and a serratus anterior plane block. Three months after the nerve block workshop, all of the residents responded they were "moderately likely", "quite likely" or "extremely likely" to perform both of the blocks in the emergency department. Ninety percent of the residents reported feeling "moderately confident", "quite confident" or "extremely confident" performing the blocks in the emergency department. Sixty percent of the residents performed a fascia iliaca nerve block and 40% of the residents performed a serratus anterior plane block 3 months post workshop.

Conclusion: There are various barriers that exist in the adoption of UGRA by EPs in the ED. Our multi-modal approach attempts to address several different barriers at once in order to optimize the likelihood of UGRA use by EPs. We increased knowledge and confidence through a hands-on workshop that used realistic models which accurately simulated hydrodissection of fluid in a fascial plane. Frequent learning pearls emailed out to residents and attendings decreases knowledge attrition. Time to set-up for nerve blocks is decreased by the use of pre-assembled nerve block kits and QR codes posted on ultrasound machines contain quick access to procedural information. Training of both residents and attendings allows for the entire ED staff to be able to perform and supervise the same procedures. We designed our multi-modal nerve block teaching approach to allow for comprehensive education in and logistical support of UGRA for EPs which in turn increased confidence performing the nerve blocks in the ED. Our 3 month post workshop survey showed a significant increase in the total number of fascia iliaca nerve blocks and serratus anterior plane blocks performed in the ED.

No, authors do not have interests to disclose

224 Variable NIOSH Quantitative Fit Testing Failure Rates of Reused and Sterilized "Duckbill" Type N95 Masks

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Study Objectives: In response to worldwide shortages of N95 masks during the SARS-CoV2 pandemic, the Centers for Disease Control and Prevention (CDC) has highlighted various conservation and reuse strategies including isolation and vaporized hydrogen peroxide but with limitations of "safe" reuse of N95 masks up to five times. The aim of this project was to evaluate the results of NIOSH