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.

400 Development of Virtual Asylum Network to Meet the Legal Needs of Asylum Seekers

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Study Objectives: Asylum applications in the United States have been steadily growing over the past decade, with roughly 90, 000 applications submitted in 2020 alone. Asylum seekers are required to have proof of a well-founded fear of persecution due to a person's race, religion, nationality, membership in a particular social group, or political opinion, and physicians can play an important role in providing critical forensic medical evaluations documenting physical and psychological trauma for these victims' cases. Due to lock-downs and isolation, the COVID pandemic has made it increasingly difficult for asylees to obtain this critical evaluation to bolster their case, and thereby ensure their safety. Our objective was to establish the first virtual student-run asylum clinic in Western Massachusetts to address the growing need for medical forensic evaluations during the COVID pandemic where travel and in-person evaluations are limited.

Methods: The Worcester Asylum Clinic was founded in Spring 2020 to meet the growing need for forensic evaluations in Western and Central Massachusetts. Through emails, listservs, and other recruitment initiatives, we established a network of physician evaluators, medical students, interpreters, and lawyers with a shared goal of pro-bono assistance for local asylum cases, each integral to the clinic's success. Lawyers submitted cases through a HIPAA-compliant REDcap form from our website, triggering medical student case coordinators to start organizing and processing their request. National virtual trainings offered by Physicians for Human Rights and other similar organizations were utilized to train volunteer physician evaluators and medical students on the principles of forensic evaluation and case sensitivity. Additionally, we developed a virtual mentorship program to allow clinic volunteers to work alongside trained evaluators/students to provide technical and emotional support. Monthly meetings were also conducted separately with faculty and medical students to discuss clinic operations and to provide a space for peer- support.

Results: From July 2020 to April 2021, 29 evaluations were conducted using Zoom. 36 case requests were submitted by 12 law firms, 2 cases were cancelled by the lawyers and 8 cases referred to nearby clinics due to limitations on language, sex, or provider availability. Through the virtual training and peer mentorship program, 10 providers conducted evaluations independently, and another 9 are being onboarded. Additionally, 33 medical students have completed training of which many are actively supporting cases. While asylee and volunteer feedback was overwhelmingly positive, limitations included wireless internet connectivity issues and access to video-enabled devices, though highly infrequent.

Conclusion: The development of a fully virtual alternative to in-person asylum case evaluations has greatly increased the capacity of Worcester Asylum Clinic to meet the growing needs of asylum seekers in Central Massachusetts. As in-person encounters resume, virtual clinics can complement in person evaluations to continue to provide asylees and their case teams a more flexible option to acquiring needed evaluations.

401 Emergency Department Utilization Following Statewide Stay at Home Orders During the Novel Coronavirus (COVID-19) Pandemic

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Study Objective: With COVID-19 cases and fatalities increasing nationally, health officials implemented policies and restrictions to keep the positivity rate in check. In California, a statewide stay at home order was issued on March 19, 2020 and again on December 7, 2020. The objective of this study was to assess the impact each stay at home order had on ED utilization.

Methods: We conducted a multi-center, retrospective study among adult patients ($\geq$18 years) presenting to two emergency departments (urban level 1 trauma center and suburban academic hospital with combined annual census of $\sim$80,000). We compared ED utilization over a two-week period both prior to and following each statewide stay at home order (March and December, 2020), as well as similar periods in 2019. We calculated the percent change in ED volume and admissions for each.

Results: Prior to the first stay at home order, there were only 70 confirmed COVID-19 cases in the county, compared to 94,169 cases prior to the subsequent stay at home order. Compared to 2019, ED volume and admissions during the two-week period following the initial stay at home order decreased by 30.7% and 28.4%, respectively. Following the second stay at home order, ED volume was only down 12.4% from 2019, while admissions were up 4.4%. Similarly, compared to the two week period prior to the initial stay at home order, ED volume and admissions decreased by 22.8% and 14.0% in the following 2-week period, respectively. However, ED volume and admissions remained similar following the second stay at home order, with an increase by 0.8% in ED visits and 1.6% increase in admissions between the two weeks before and after the order began.

Conclusion: This study of ED utilization trends during the COVID-19 pandemic demonstrated that ED volume and admissions decreased dramatically during the initial stay at home order. However, despite the large differences in the number county-wide positive cases, ED utilization and admissions were largely unaffected by the second stay at home order.

EMF 402 Comparison of the Effects of a Bromelain and Collagenase-based Enzymatic Agent on Inflammation and Eschar Debridement in a Partial Thickness Porcine Model

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Study Objectives: Thousands of people are admitted to the hospital each year with burns. Many such burns are deep partial or full-thickness and require some form of debridement to allow burn depth assessment, enhance healing and reduce scarring. At present, most deep burns are treated surgically, with a minority of patients treated with the only commercially available enzymatic debridement agent in the US, collagenase. However, there are few if any studies that demonstrate the efficacy of a collagenase-based enzymatic agent. In contrast, based on extensive preclinical and clinical data, a bromelain based enzymatic agent is now approved in Europe for treating deep burns. This agent is derived from the stems of pineapples and enriched with bromelain. No study has directly compared the debriding efficacy of a collagenase-based versus bromelain-based enzymatic agent. In this study, we hypothesize that a bromelain-based enzymatic agent will be more effective at debriding partial thickness burns compared with the collagenase based agent. We further hypothesize that the bromelain based agent will completely debride the burns after a single 4-hour application while the collagenase-based agent will be less effective and will require multiple daily applications. Finally, we hypothesize that burns debrided with the bromelain-based agent will heal faster than those debrided with the collagenase-based agent. Supportive results may lead to a major advance in how we provide therapy to hundreds of thousands of burn victims each year.

Methods: This study will be conducted in an accredited medical center with 2 female domestic pigs. Our method of creating burns results in standardized and reproducible partial thickness burns based on a previously validated model. Burn wounds will be followed for a period of 28 days. Digital imaging and full thickness skin biopsies will be obtained at 4 hours, and at 10, 14, 18 and 28 days. Biopsies will be subjected to blinded histomorphometric analysis.

Results: None currently available. To date we are awaiting the bromelain and collagenase product which is being shipped internationally to our location (delayed due to COVID19).

Conclusion: Although we cannot draw any conclusions presently, preliminary data from the mentor's lab concluded that a single 4-hour application of a bromelain-based enzymatic agent completely debride deep partial thickness burns in a validated porcine model. If the bromelain-based enzymatic agent shows to be more efficacious than collagenase, it may replace both collagenase mediated and surgical debridement. Ultimately, this could lead to fewer consequences from the injury to the patient, better aesthetic outcomes at the site of injury, and potentially a decreased financial burden.

EMF 403 Social Determinants of Health and COVID-19 Infection in North Carolina: A Geospatial Analysis

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Study Objectives: The COVID-19 pandemic has demonstrated that social determinants of health (SDOH) are profoundly linked to the spread and outcomes of COVID-19. However, the relationships between these SDOH and COVID-19 spatial outbreaks have yet to be determined. We conducted spatial analyses with geographic