

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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active. Conclusion: The use of a rapid COVID-19 assay did not improve patient throughput in our ED and was associated with a longer LOS, especially among those discharged from the ED. Additional testing is needed to determine the utility of the rapid COVID-19 test among an ED population.

71 COVID-19 Referral Patterns for Tent and Drive-Through Screening

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Study Objectives: In fewer than 6 months, the SARS-CoV-2 virus (COVID-19) has been responsible for over 100,000 American deaths. The creation of novel COVID-19 screening sites such as walk-up medical tents and drive-through testing sites may improve our ability to rapidly screen large numbers of people without overwhelming traditional medical sites such as clinics or hospitals. How these novel screening sites are used by patients, providers, and the community is still unknown. Our objective was to investigate why, and how patients were being referred for screening.

Methods: We evaluated the referral patterns for a single COVID-19 walk-up medical tent and a single drive-through testing site established one-block from an urban academic tertiary-care hospital between March 2020 and June 2020. Data was gathered as to why and how the patient was referred. Reasons for referral included being immunocompromised or having an immunocompromising comorbidity (such as diabetes), requirement by an employer, asymptomatic patients exposed within the last 7-14 days, age greater than 65, health care workers, and other. Data on how the patients were referred, included telehealth visits with real-time audio-visual, telephone calls, or in-person office visits was also gathered. Data was abstracted from standardized collection forms and checked for accuracy by two reviewers. Descriptive analytics were used to describe the cohort.

Results: Of the 767 patients who presented for screening, 39.5% were referred for being immunocompromised or having an immunocompromising comorbidity. Employer requirements constituted 30.8% of referrals. Asymptomatic patients with positive exposures in the last 7-14 days made up 13.4% of referrals. Age greater than 65 and health care workers constituted 11.6% and 9.8% of referrals respectively. The remaining 8.2% were referred for "other" reasons. When examining how the referrals were made, 58.7% came from tele-health visits with real-time audio-visual. Telephone visits constituted 35.8% of referrals, and in-person office visits made up the remaining 5.5%.

Conclusion: As expected, the vast majority of screening referrals came from patients who were immunocompromised or had immunocompromising comorbidities. Remarkably, 30.8% of referrals were made based on (non-health care) employer requirements. This may be explained by the prolonged stay-at-home orders governing the DMV area (DC, Maryland and Virginia). Many patients may have been essential workers, required by their jobs to undergo screening. This study could not confirm who the employers were, or if the screening requirements were scientific. Regardless, the role of employers in generating demand for screening services must be noted. When examining how referrals were made, 94.5% stemmed from real-time audio-visual telehealth appointments (58.7%) or telephone appointments (35.8%). It has been noted that telehealth has the potential to improve access and equity. The role of telehealth in a pandemic seems vital in delivering care directly to our most medically and socio-economically vulnerable. Furthermore, tele-health may be critical in expanding access to essential workers in a time of crisis.

Post Hoc Analysis of the RCT Comparing F(ab')₂to Fab Antivenom: Control of Venominduced Tissue Injury in Copperhead Snakebite Patients

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Background: Fab antivenom (FabAV) halts progression of venom-induced tissue injury and improves recovery in copperhead snakebite. It is unknown if F(ab')₂ does as well. A prior study comparing F(ab')₂AV with FabAV included copperhead snakebite patients and made assessments of the initial and maintenance control of the

envenomation syndrome. In copperhead snakebite, these assessments primarily evaluate the control of tissue injury. The objective of this study is to compare control of tissue injury in copperhead snakebite patients treated with $F(ab')_2$ versus Fab antivenom.

Methods: We performed a post hoc analysis of the copperhead envenomated patients in a prospective, multicenter, blinded, randomized, controlled trial (RCT) comparing F(ab')₂AV to FabAV approved by the Institutional Review Board at each site and registered at ClinicalTrials.gov, #00636116. In this analysis, only patients with copperhead snakebite as determined by the investigator and with clinical signs of envenomation were evaluated. Patients were randomized to one of three arms with the initial control and maintenance study drugs as follows: 1) F(ab')2/placebo 2) F(ab')2/F(ab')2 3) Fab/Fab. The primary outcome of this analysis is the number of repeat doses required to obtain initial control. Additional outcomes include the time from antivenom administration to initial control and the number of patients requiring additional doses after maintenance. Control of the envenomation syndrome was evaluated after start of antivenom, after each dose, and on days 5, 8, and 15. We performed a non-inferiority analysis of the combined F(ab')₂AV group with the FabAV group assuming a meaningful difference in the proportion of patients receiving repeat initial control doses or unscheduled post maintenance doses of 20%, and a meaningful difference in time to initial control of >1 hr.

Results: Of the 121 enrolled patients in the original trial, 21 (13 F(ab')₂AV, 8 FabAV) had definitive copperhead envenomation. Mean age was 43.9 (SD 21.4) years with a male predominance of 86%. Baseline snakebite severity score and time to antivenom were similar between F(ab')₂AV and FabAV groups. One (8%) F(ab')₂AV and 2 (25%) FabAV patients required repeat initial dosing, difference = 17%, 95% CI (-18, 57). One (8%) F(ab')₂AV and 1(13%) FabAV patients required additional doses after maintenance, difference = 5%, 95% CI (-27, 45). Median time to initial control was 2.7 IQR (2.0, 9.3) hours and 3.5 IQR (2.0, 7.4) for F(ab')₂AV and FabAV respectively, difference - 0.7 hours, 95% CI (-0.9, 2.6). Repeat initial dosing and time to initial control met the post hoc non-inferiority assumptions, whereas additional doses after maintenance did not. See figure.

Conclusions: A rigorous RCT comparing $F(ab')_2$ and Fab antivenom was performed and included a small subgroup of copperhead snakebite patients. A meaningful difference was determined in a post hoc manner and this exploratory analysis indicated that the available measures of the control of tissue injury were not statistically different between the two groups. Further work is required to verify these findings.

Figure: Comparison of F(ab')2 with Fab antivenom.

