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.

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Methods: Starting in January 2020, our health system in northeast Ohio expanded availability of rapid lab-based HIV testing from beyond the urban main campus to 11 community hospital EDs. Collaboration with laboratory medicine and infectious disease permitted these EDs to offer rapid lab-based HIV testing patients presenting with STIs or other clear HIV risk factors. For each preliminary positive test, a confirmatory test was reflexively run using blood samples obtained from the initial draw. Data was collected through an EMR query using a series of EPIC lab order codes for all ED encounters in the health system between January 1 and May 2, 2020 for which a rapid HIV test was ordered in the ED. Data query included test results, patient demographic information, ED location, and time of patient arrival to ED. Proportions and p values (Chi Square) are reported.

Results: There were a total of 326 distinct ED encounters in which a rapid HIV test was performed across the 12 health system EDs. The mean age of patients was 29.9 years (SD = 11.7), and 172 (52.8%) were male. Overall, there were 11 reactive tests (3.4%), 234/326 (71.8%) of encounters with a rapid HIV test occurred at community EDs, with a median of 18 tests (SD: 11.8) being performed over the study period at each location. There was no difference in the prevalence of HIV positive tests between community and urban settings (7/234; 3.0% positive tests community vs. 4/92; 4.3% EDs, with a median of 18 tests (SD: 11.7), and 172 (52.8%) were male. Overall, there were 11 reactive tests (3.4%), 234/326 (71.8%) of encounters with a rapid HIV test occurred at community EDs, with a median of 18 tests (SD: 11.8) being performed over the study period at each location. There was no difference in the prevalence of HIV positive tests between community and urban settings (7/234; 3.0% positive tests community vs. 4/92; 4.3% positive Main Campus urban tertiary care center, X² (1, N = 326) = 0.36, p = 0.54).

Conclusion: Expanding rapid HIV testing to community EDs in a regional health system identified additional previously unrecognized patients who tested positive for HIV, with a similar proportion of positive tests at the urban main campus ED as community EDs.

### Distinct ED Encounters

| ED | Rapid Test Reactive Results |
|----|-----------------------------|
| 1 (community) | 12 | 1 |
| 2 (community) | 3 | 0 |
| 3 (community) | 36 | 3 |
| 4 (community) | 23 | 1 |
| 5 (community-pediatric ED) | 12 | 0 |
| 6 (community) | 9 | 0 |
| 7 (community-pediatric ED) | 14 | 1 |
| 8 (community) | 23 | 0 |
| 9 (community) | 42 | 0 |
| 10 (urban tertiary care center) | 92 | 4 |
| 11 (community) | 22 | 0 |
| 12 (community) | 3 | 0 |
| 13 (community) | 24 | 1 |
| 14 (community) | 11 | 0 |
| Total | 326 | 11 |

### 379 Accuracy of an Emergency Department Clinical Protocol for Early Identification of Coronavirus Infection

Bonadio W, Bonadio W, Jackson K, Gottlieb L/Mount Sinai Medical Center, New York, NY

Study Objective: We assessed the efficacy of an emergency department [ED] protocol to cohort admitted ED patients utilizing clinical parameters. These parameters were used to distinguish likelihood of novel coronavirus disease 2019 (COVID-19) in patients presenting with acute respiratory symptoms prior to testing results.

Methods: An prospective ongoing chart review was performed during April of the 2020 pandemic in a several busy urban ED on admitted, but boarding, ED patients who presented with acute respiratory symptoms clinically suspicious for COVID-19 infection. Each patient’s chart was reviewed for an assessment of five clinical parameters in patients who were felt by the attending physician to have COVID-19: presence of fever, cough, hypoxia, and shortness of breath; and chest radiograph evaluating for bilateral pulmonary infiltrates. Chart reviews were performed prior to result of COVID-19 testing. All received performance of NP COVID-19 PCR testing.

Results: Of 225 patients studied, 190 (84%) were PCR+ and 35 (16%) PCR-. The manifestation of all 5 positive clinical parameters was present in 136 patients [61%]. The rate of manifesting all 5 positive clinical parameters was significantly greater in PCR+ [70%] vs PCR- [9%] patients [p < 0.0001]. For PCR+ outcome, the presence of all 5 positive clinical parameters had a specificity of 92%, positive-predictive value of 97%, and positive likelihood ratio of 8.1.

Conclusions: Utilizing an ED protocol assessing 5 clinical parameters in patients suspected of COVID-19 infection accurately distinguishes risk of infection with COVID-19 prior to PCR test results and can be used to guide early patient management decisions.

### 380 Mixed Asynchronous/Didactic ECG Curriculum to Increase Resident Competency

Parker B, Jennings S/UTHealth San Antonio, San Antonio, TX

Introduction: Emergency physicians are considered experts in the acute interpretation of the ECG. This occurs during shifts, and most commonly as an interruption during care on other patients. In some departments, interruptions in patient care can occur as often as once every 6 minutes. Our newer graduates routinely report anxiety regarding interpreting ECGs in this context. There are very few formalized ECG curricula available, the decision was made to design a mixed asynchronous and flipped classroom model to better equip residents to interpret ECGs during a shift.

Study Objectives: This curriculum is being developed to increase the ability to successfully interpret ECGs by the residents. After completing the course, the resident would be eligible to take a “credentialing” exam to be able to sign ECGs for patients. Successful completion of the course would be obtaining a score of >80% on the credentialing exam.

Methods: The learners will initially watch one ECG video a month, then have an interactive in-class discussion of similar ECGs one week later. After one to two weeks, an online quiz will be given to assess their retention of the information presented. This lecture series will be a longitudinal experience, occurring once per four-week block. This will take approximately 2 hours per 4-week block, with 13 blocks per year. After completing the full course, the resident would be allowed to take a 1-hour ECG “credentialing” quiz. If they score greater than 80% on the examination, and without missing any ST/MI designations, they would then be allowed to sign ECGs during shift. At time of initiation of this curriculum we will have 2 years of credentialing data which we could then compare to the trainees’ scores that undergo our curriculum.

Results: At the completion of a longitudinal one year mixed asynchronous and in class didactic training program on ECGs, the residents will successfully complete a “credentialing” examination to be able to sign ECGs during shift with attending oversight. Prior to the initiation of this curriculum, the entire residency was given the “credentialing” exam with a 28% (9/32) pass rate. Most of the residents that passed were seniors at the time and have graduated the program.

Conclusion: This process should increase the comfort of signing ECGs as well as increase the overall ability to interpret the ECG in the correct clinical setting.

### 381 Effectiveness of Preventive Measures in Neuronal Cell Under Hypoxia

Cho YD, Choi S, Yoon Y, Park S, Lee E/Korea University Medical Center, Seoul, Republic of Korea

Study Objectives: Many patients are admitted to the emergency department (ED) due to major trauma. These patients may suffer from massive hemorrhage, respiratory failure, and progress to hypovolemic shock state. It will lead to over-expression of inflammatory responses, malfunction of the immune system, homeostasis failure, and, eventually, multi-organ failure. Of the shock patient treatment, airway maintenance due to major trauma. These patients may suffer from massive hemorrhage, respiratory failure, and progress to hypovolemic shock state. It will lead to over-expression of inflammatory responses, malfunction of the immune system, homeostasis failure, and, eventually, multi-organ failure. Of the shock patient treatment, airway maintenance effectiveness of preventive medications, pentoxifylline (PTX), dexamethasone (DEXA), hypertonic saline (HTS). SH-SY5Y cells were treated with the above medication assays, Cell apoptosis assay, Reactive oxygen species were done to measure the effectiveness of preventive medications, pentoxifylline (PTX), dexamethasone (DEXA), hypertonic saline (HTS). SH-SY5Y cells were treated with the above medication treatments before hypoxia (1% O2) and after hypoxia.