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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Table 9. The Mean Differences Between QTc Correction Equations Using ANOVA Comparison

| Comparison       | Mean  | p Value | 95% CI      | LB   | UB    |
|------------------|-------|---------|-------------|------|-------|
| QTcB vs QTcH     | 25.968| <0.001  | 17.622      | 34.314|
| QTcB vs QTcFri   | 33.843| <0.001  | 25.457      | 42.289|
| QTcB vs QTcFra   | 37.622| <0.001  | 28.776      | 45.468|
| QTcH vs QTcFri   | 7.875 | 0.075   | -0.047      | 16.221|
| QTcH vs QTcFra   | 11.514| 0.003   | 2.808       | 19.98 |
| QTcFri vs QTcFra | -3.279| 0.743   | -11.642     | 5.067 |

Table 10. The Mean Differences Between QTc Correction Equations in Women Using ANOVA Comparison

| Comparison       | Mean  | p Value | 95% CI      | LB   | UB    |
|------------------|-------|---------|-------------|------|-------|
| QTcB vs QTcH     | 25.968| <0.001  | 14.001      | 37.932|
| QTcB vs QTcFri   | 32.020| <0.001  | 20.065      | 43.996|
| QTcB vs QTcFra   | 34.823| <0.001  | 22.858      | 46.788|
| QTcH vs QTcFri   | 6.064 | 0.557   | -5.901      | 18.030|
| QTcH vs QTcFra   | 8.857 | 0.225   | -3.109      | 20.822|
| QTcFri vs QTcFra | -2.793| 0.931   | -14.758     | 9.173 |

CONCLUSION It was notable that the longest QTc prolongation seen in this study was only 14.48 ms, using the Bazett formula. With other formulas, this prolongation was significantly smaller and so was the proportion of patients meeting QTc prolongation criteria. Not surprisingly, the Bazett formula again overestimated extent of QT prolongation. We can only speculate that the differences are perhaps related to the fact that our population was nearly exclusively African American. Common channels variation has been well documented to be a factor in QT prolongation, including drug-induced QT prolongation. In the African-American ethnic subgroup, Ser1103Tyr-SCN5A is seen in approximately 8% of population and can certainly explain our observation. In the African-American ethnic subgroup, Ser1103Tyr-SCN5A is seen in approximately 8% of population and can certainly explain our observation.

METHODS Four transcatheter-based solutions were explored in their potential uses for COVID-19 therapy: local drug delivery, energy-based and photodynamic therapy, and neuromodulation.

RESULTS First is local, catheter-directed delivery of therapeutics directly to the lungs. A localized delivery of therapeutics could increase the bioavailability of drug(s) at the site of action, in comparison to systemic delivery alone. A second approach is light-based therapy. Considering the antiviral, anti-inflammatory, antimicrobial, and vasculoprotective characteristics of visible light energy (380 to 750 nm), a localized, light-based catheter therapeutic approach could prove to be effective. Given the distinct features of COVID-19 disease progression and its attack on hemoglobin and porphyrins, we suggest the infusion of porphyrin-based photosensitizers (PS). COVID-19 has an affinity for PS and would attach to these molecules, which would reduce hypoxic symptoms and allow for their deactivated in the photosensitization of PS molecules. A third approach considers that several studies have demonstrated that viruses hold electrical charges. Neutralizing the charge of the virus within an electrical field is feasible to reduce the viral load using pacing wires and catheters placed near lungs. A final approach is the neuromodulation of the host inflammatory response. In a small preclinical study, the release of proinflammatory cytokines was reduced following transcatheter delivery of low intensity focused ultrasound treatment to the spleen.

CONCLUSION It was notable that the longest QTc prolongation seen in this study was only 14.48 ms, using the Bazett formula. With other formulas, this prolongation was significantly smaller and so was the proportion of patients meeting QTc prolongation criteria. Not surprisingly, the Bazett formula again overestimated extent of QT prolongation. We can only speculate that the differences are perhaps related to the fact that our population was nearly exclusively African American. Common channels variation has been well documented to be a factor in QT prolongation, including drug-induced QT prolongation. In the African-American ethnic subgroup, Ser1103Tyr-SCN5A is seen in approximately 8% of population and can certainly explain our observation. In the African-American ethnic subgroup, Ser1103Tyr-SCN5A is seen in approximately 8% of population and can certainly explain our observation.

BACKGROUND COVID-19 has been the catalyst for a quantum shift in our professional and personal lives, literally and figuratively within the blink of an eyelash. Healthcare workers (HCWs) have been profoundly impacted by this disruption at all levels, especially those working in high-stress specialties, such as cardiology, in resource-deprived and population-dense areas in developing countries, such as India. We studied the impact of COVID-19 on a cohort of HCWs working in a high-stress, high-turnover cardiac intensive care unit (CICU) of a tertiary care center in India. Questionnaires, results, and conclusions detailed in this presentation. Considering the fact that India has not even reached the peak of the pandemic, the negative psychosocial impact of COVID-19 on HCWs of the cardiovascular community is highly concerning and disheartening. Simplistic, sustainable, long-term action plans are the need of the hour. We must use the cataclysm wrought by COVID-19 to plug our broken healthcare systems. For that, our frontline warriors should be the best state of physical, mental, and emotional well-being to face up to this challenge. The time to take action is NOW!!

METHODS Evaluate the psychosocial impact of COVID-19 on HCWs working in a highly-stressed environment with high patient burden and turnover rates (45 bedded ICU including 15 step-down beds, average occupancy 90% to 100%). Understand perceived psychological burden and risk of post-traumatic stress disorder (PTSD) in these HCWs.

BACKGROUND Current strategies for COVID-19 therapy involve the systemic administration of drugs. While pharmaceutical treatments continue to be evaluated, device-based therapies have yet to be explored. We propose several transcatheter-based approaches for the treatment of COVID-19.