

COVID-19, Ethics & Equity – What is our Role as Surgeons?

Tanya L. Zakrison, MD, MPH Section for Trauma and Acute Care Surgery, Department of Surgery, The University of Chicago, Chicago, IL

Matthew Martin, MD Trauma and Emergency Surgical Service, Scripps Mercy Medical Center, San Diego, CA

Mark Seamon, MD Division of Traumatology, Surgical Critical Care and Emergency Surgery, Perelman School of Medicine at the University of Pennsylvania, PA

Jeffrey Matthews, MD Chair, Department of Surgery, The University of Chicago, Chicago, IL

Bellal Joseph, MD Trauma, Critical Care, Burn and Emergency Surgery, University of Arizona College of Medicine, Tuscon, AZ

Rishi Rattan, MD Division of Trauma and Surgical Critical Care, University of Miami Miller School of Medicine, Miami, FL

April Mendoza, MD Division of Trauma, Emergency Surgery, and Surgical Critical Care, Massachusetts General Hospital, Boston, MA

Andrew Bernard, MD Acute Care Surgery, Trauma and Surgical Critical Care, University of Kentucky College of Medicine, Lexington, KY

Rondi Gelbard, MD Acute Care Surgery, Department of Surgery, University of Alabama at Birmingham, Birmingham, AL

Marie Crandall, MD, MPH Division of Acute Care Surgery, Department of Surgery, University of Florida College of Medicine Jacksonville, Jacksonville, Florida.

Laurie Punch, MD Department of Surgery, Washington University in St. Louis School of Medicine, St. Louis, MO

D'Andrea Joseph, MD Trauma and Acute Care Surgery, New York University Winthrop Hospital School of Medicine, Mineala, NY

Stephanie Bonne, MD Division of Trauma and Surgical Critical Care, Rutgers New Jersey Medical School, Newark, NJ

Ronnie Mubang, MD Division of Trauma and Surgical Critical Care, Department of Surgery, Vanderbilt University Medical Center, Nashville, TN

Maureen McCunn, MD Division of Critical Care Anesthesiology, Department of Anesthesiology, University of Maryland School of Medicine, Baltimore, MD

Selwyn Rogers, MD MPH Section for Trauma and Acute Care Surgery, Department of Surgery, The University of Chicago, Chicago, IL

Patricia Turner, MD American College of Surgeons, Chicago, IL

Jeffrey Claridge, MD Department of Surgery, MetroHealth Medical Center, Cleveland, OH

Sharon Henry, MD R Adams Cowley Shock Trauma Center, University of Maryland School of Medicine, Baltimore, MD

Marc deMoya, MD Division of Trauma and Acute Care Surgery, Department of Surgery, Medical College of Wisconsin, Milwaukee, WI

Esther Tseng, MD Department of Surgery, MetroHealth Medical Center, Cleveland, OH

Nicole Goulet, MD Department of Surgery, NYU Langone, New York University School of Medicine, New York, NY

Lily Tung, MD Department of Surgery, Division of Trauma, University of British Columbia, Vancouver, BC, Canada

Elizabeth Kiselak, MD Department of Trauma, Surgical Critical Care & Injury Prevention, Hackensack University Medical Center, Hackensack University Medical Center, Hackensack, NJ

Thomas Duncan, DO Division of Trauma, Ventura County Medical Center, Ventura, CA

Haytham Kaafarani, MD, MPH Center for Outcomes and Patient Safety in Surgery (COMPASS), Massachusetts General Hospital, Boston, MA

Paula Ferrada, MD Division of Acute Care Surgical Services, Virginia Commonwealth University School of Medicine, Richmond, VA

Shannon Foster, MD Reading Trauma Center, Reading Hospital, Tower Health System, West Reading, PA

Linda Ding, MD Division of Trauma & Acute Care Surgery, Department of Surgery, University of South Alabama, AL

Ariel Santos, MD, MPH Trauma, Acute Care Surgery and Surgical Critical Care, Texas Tech University Health Sciences Center School of Medicine, Lubbock, TX

Robert D. Winfield, MD Division of Acute Care Surgery, Trauma, and Surgical Critical Care, University of Kansas Medical Center, Kansas City, KS

Jessica Weaver, MD Division of Trauma, Surgical Critical Care, Department of Surgery, UC San Diego Health, San Diego, CA

Peter Angelos, MD, PhD Department of Surgery and MacLean Center for Clinical Medical Ethics, The University of Chicago, Chicago, IL

Corresponding Author & Request for Reprints:

Tanya L. Zakrison, MD, MPH, FACS, FRCSC

Section for Trauma and Acute Care Surgery

The University of Chicago Medicine

5841 South Maryland Avenue

Chicago, IL 60637

E-mail: tzakrison@surgery.bsd.uchicago.edu

Phone: 773-834-2482

Fax: 773-702-5050

Keywords: COVID-19; surgery; Ethics; equity

Unfunded work

Mini-Abstract:

The COVID-19 has caused an unprecedented crisis with frontline surgeons facing novel ethical and equity dilemmas daily. Given the unique characteristics of this pandemic, surgeons are now forced to shift from individual patient-centered care to a more public health, population-centered care approach. We provide an ethical framework in which to consider the issues affecting us, our patients and our larger local and global communities

The COVID-19 pandemic has affected all of our lives around the world. As surgeons, we proudly work on the front lines of any local, regional, or global disaster. We care for vulnerable and injured patients in our trauma bays and our critically ill patients in the Intensive Care Unit (ICU), regardless of their background, socioeconomic position, or COVID-19 status. During the current pandemic, we remain steadfast and dedicated to excellence in the clinical care of our patients, furthering research and evidence-informed practice while improving the surgical workplace environment by addressing issues of injustice and inequity. The COVID-19 pandemic has now forced us, as surgeons, to shift our ethical focus from individual patient-centered care to a more public health, population-centered care approach. Instead of maximizing individual patient outcomes we must instead seek to maximize outcomes for the greater population and society where we live and work. While surgical and critical care societies have been appropriately creating urgently-needed clinical guidelines (based on scarce but emerging data), there is little guidance regarding the ethics and equity population issues that surgeons face when working in this new era of COVID-19. As the authors each have a long history of equity work in their various fields, we propose an ethical framework in which to consider these issues affecting us, our patients and our larger local and global communities.

Since many of us are Acute Care Surgeons, it is important to highlight that we practice Trauma-Informed Care (TIC), which acknowledges the high prevalence of trauma in society.⁽¹⁾⁽²⁾

Trauma has continued during the COVID-19 pandemic, unabated throughout the country. TIC is centered around the consciousness that people come into any encounter with a set of experiences that greatly impact their ability to feel safe and to interact constructively with healthcare.

Physicians are trained in medical school to apply universal precautions. This means that we *assume* that all patients have been exposed to transmissible pathogens, as they may have been

exposed to previous trauma. Thus, TIC includes a commitment to both protect physicians from the patient with appropriate personal protective equipment (PPE) while creating a healthcare encounter that protects the patient from us by avoiding re-traumatization during the encounter. We pride ourselves in caring not just for the patient, but their families, our trainees and ourselves as we deal with our own histories of trauma while recognizing the larger historic and political structures shaping healthcare. We view TIC as the confluence of three overarching themes (Figure 1). These themes are as applicable to COVID-19 disease as they are to firearm violence or other etiologies of trauma.

1. Healthcare worker wellness and mitigating moral distress
2. Societal issues of equity and inclusion
3. Structural violence and deeper issues of structural discrimination

We, as a siblingship of surgeons and physicians, emphatically state the following:

1. Healthcare worker (HCW) wellness:

- a. We acknowledge the stress of working during a pandemic that increases risk to our own personal health, increases risk amongst family members and other contacts and leads to isolation from loved ones. This sentiment has been captured very well by the New Yorker April 06, 2020 cover (Figure 2). HCWs are forced to make difficult ethical and moral decisions under extremely difficult circumstances that can lead to moral distress. All frontline HCWs should have easy access to emotional and psychological first aid as in any disaster zone or area.(3)

- b. Non-governmental health care organizations or charities assisting in disaster response should not be propagating messages of discrimination or hate, nor coercing volunteer HCWs to contractually agree to such messaging.(4)
- c. All HCWs in the United States are entitled to immediate and complete protection against COVID-19 infection. There is clear evidence that SARS-CoV2 can stay aerosolized for up to 3 hours, increasing the risk of transmission.(5) Our position is that the current Center for Disease Control and Prevention (CDC) recommendations for SARS-CoV2 protection are inadequate, in terms of optimizing the protection of HCWs, as they are heavily influenced by resource shortages that could have been mitigated by the federal administration early and are incongruous with previous CDC recommendations of 2003 for SARS-CoV1.(6)(7) It is analogous to the early, false reassurances of the U.S. Environmental Protection Agency after 9/11 about water and air safety at Ground Zero, which ultimately endangered the lives of frontline emergency and HCWs.(8) Similarly, we feel that the current CDC recommendations place HCWs at an increased risk of preventable illness and even death. We believe that these guidelines, which could mean the difference between the life and death of HCWs, their patients, or their families, should be biased heavily toward maximal protection versus less effective or unproven compromises.
- d. As such, we call for the President of the United States to both invoke the Defense Production Act (DPA) by executive order and enforce it to direct the nation-wide manufacture in the interest of the American people of i) COVID-19 test kits, ii) ventilators and iii) PPE. We do not support inciting free-market competition or

further partisan politicization between states at this time of our national and global public health crisis.(9) We do not support inciting free-market competition between states at this time of public health crisis. The DPA will also protect citizens, state governors and county-level officials against any price gouging that is occurring by corporations when negotiating the mass purchases of the above three items.

2. Societal Issues of Equity and Inclusion:

We recognize that the threat highlighted by the Federal Bureau of Investigation of hate crimes against Asian and Asian-Americans is increasing across the United States.(10) We call for all citizens to protect each other against such occurrences by calling out and reporting hate crimes when and wherever they may occur. We are concerned that biases already inherent in our healthcare system may worsen during the COVID-19 pandemic and that freedom of speech is of paramount importance when identifying potential and real risks to public health.

- a. We condemn the use of racism-inciting, non-scientific terms or colloquialisms when referring to this and other pandemics, to eliminate stigmatization or blame of groups. Please refer to the representative #EAST4ALL infographic on the topic of racism, xenophobia and stigma in the time of COVID-19 (Figure 3), the statement of the Society for Asian Academic Surgeons(11), the statement from the American College of Surgeons(12) and information from the CDC on reducing stigma.(13)

- b. As testing for COVID-19 is limited with considerable variability in guidelines, who gets tested may ultimately be a result of implicit bias. There may exist an overrepresentation of on-demand testing of the ‘rich and famous’ and higher social classes compared to undertesting, as with other medical investigations, of Black and Brown communities and other underserved groups.(14) We call on the CDC to collect and report publicly on the racial, ethnic or class demographic information of patients receiving testing to identify and address such biases in real time.
- c. Freedom of speech should be preserved and protected for all members of society when advocating for the public health of their communities:
 - i. To echo the recent statement of the American College of Surgeons, HCWs should be able to speak freely, without fear of reprisals, about shortages of PPE and potential immediate solutions.(15)
 - ii. Military healthcare providers and leaders at all levels of the command structure should feel free to speak up about concerns of any threat to the public health of their colleagues or the service members under their charge, also without fear of reprisals or adverse career actions.(16)

3. Structural Violence:(17)

Given the various, necessary shelter-in-place orders across the nation and the halting of the U.S. economy, we recognize the disproportionate economic burden that this will have on both individuals and families. We recognize that even the ability to shelter in place and

socially distance is dependent on one's privilege or socioeconomic status. In particular, this will have a devastating impact on communities which have been economically marginalized through systemic structures and biases, notably African-American communities, with long historic roots in the United States.(18) Brown and Hispanic communities are also at risk, as are individuals dependent on precarious employment such as the gig economy. White, rural families living in poverty may face food insecurity and hospital closures for economic reasons, closing off scant ICU beds. Native American communities are at risk of further economic hardship, affecting an already tenuous supply of water and electricity into some reservations across the country, on a backdrop of colonialism and cultural genocide. Undocumented individuals, homeless and incarcerated individuals in correctional facilities are at a particularly increased risk of large-scale disease transmission and illness. We anticipate that many vulnerable populations have already been severely impacted by the far-reaching effects of this pandemic due to numerous mental, physical, and financial factors. We recommend immediate economic relief for families and individuals proportionate to their needs and economic vulnerability, and not a flat sum payment to all Americans regardless of social class or income bracket. We also call for the elimination of all structures and mechanisms of systemic racism and discrimination (for example redlining) and immediate economic redress and compensation for those most affected.

- a. We recognize the devastating and all too common parallel burdens of concomitant loss of employment and thus loss of healthcare insurance and access. We recommend comprehensive, free testing and medical care for all COVID-19 positive individuals without fear of subsequent economic hardship or bankruptcy.

In addition to testing, contact tracing must be prioritized and conducted by public

health officials to mitigate further spread among vulnerable communities. We call for a robust, nationally-coordinated universal health care system to protect all Americans from financial ruin or disaster in times of illness, with emphasis on preventive care. We also call for a robust system of public health to protect citizens from current and future public health crises such as the COVID-19 pandemic and its possible resurgence.

- b. As surgeons, we recognize the urgent need for the abovementioned economic support for our most vulnerable communities, as such stressors may lead to further intentional, interpersonal violence compounded by an increased risk of COVID-19 infection. These at-risk communities include but are not limited to:
- i. poverty-stricken communities (urban or rural) that have increased access to legal and/or illegal firearms increasing the risk of homicide and /or suicide
 - ii. food insecure families and children dependent on nutrition in schools
 - iii. intimate partner and domestic violence of all genders, especially during periods of mandated ‘shelter-in-place’
 1. shelter availability may be scarce with situations of overcrowding increasing the risk of transmission of COVID-19
 - iv. unintentional injury or death of children from easy access to unprotected firearms in the homes
 - v. elderly in assisted living facilities at risk of exposure and neglect, with a higher case fatality rate than younger people

- vi. HCWs hired by third party contracts for hospitals who are being furloughed or laid-off and therefore losing health care benefits
- vii. undocumented individuals fearful of testing, detained in unsafe Immigration and Customs Enforcement conditions, separated from families or who risk deportation back to a violent environment
- viii. homeless individuals with no access to clean water or hand sanitizer and experience overcrowding in shelters
- ix. incarcerated individuals in correctional facilities where physical distancing and hand hygiene is difficult
- x. individuals struggling with mental illness or substance abuse
- xi. sex trade workers vulnerable to exploitation and homelessness

Urgent and well-coordinated action at the local, state, and federal levels must be taken to protect these vulnerable populations to prevent the rapid spread of COVID-19 and any risk of intentional, interpersonal violence or death.

- c. There will be an anticipated greater than 30% unemployment rate in the United States as a result of the COVID-19 pandemic, which will surpass the unemployment rate of the Great Depression of 1929. We support a nationally sponsored economic response plan, similar to president Franklin D. Roosevelt's New Deal almost 100 years ago, which will prioritize public work projects, financial reforms and regulations with an emphasis on economic recovery for vulnerable populations.

The COVID-19 pandemic has pushed our national and global communities to a critical and unprecedented moment for humanity. We find ourselves asking what kind of society we want for

ourselves, our families, and to leave to our children in the future. On a global level, we call for the administration of the United States to re-engage in our previous Good Neighbor Policy(19) by i) respecting all nations and their peoples ii) adopting a policy of non-interference and non-intervention and iii) in ceasing hostilities impacting the public health of populations equally affected by COVID-19 such as through wars or economic sanctions. As surgeons in the United States and around the world, we can be leaders in the free, reciprocal, and collegial distribution of medical knowledge, ideas and resources and set the stage for the kind of global society we wish to shape together.

Our response to the virus is indeed a reflection of who we are as individuals and how we, as a society, see our responsibilities to our local, national, and global neighbors.

Let this be seen by future generations as our greatest hour.

References:

1. Reeves E. A synthesis of the literature on trauma-informed care. *Issues Ment Health Nurs.* 2015;36(9):698–709.
2. Bruce MM, Kassam-Adams N, Rogers M, Anderson KM, Sluys KP, Richmond TS. Trauma Providers' Knowledge, Views, and Practice of Trauma-Informed Care. *J Trauma Nurs Off J Soc Trauma Nurses.* 2018 Apr;25(2):131–8.
3. Maunder RG, Leszcz M, Savage D, Adam MA, Peladeau N, Romano D, et al. Applying the lessons of SARS to pandemic influenza: an evidence-based approach to mitigating the stress experienced by healthcare workers. *Can J Public Health Rev Can Sante Publique.* 2008 Dec;99(6):486–8.
4. Group behind NYC's COVID-19 field hospital run by antigay evangelist [Internet]. *NBC News.* [cited 2020 Apr 3]. Available from: <https://www.nbcnews.com/feature/nbc-out/group-behind-central-park-s-covid-19-field-hospital-run-n1173396>
5. van Doremalen N, Bushmaker T, Morris DH, Holbrook MG, Gamble A, Williamson BN, et al. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *N Engl J Med.* 2020 Mar 17;0(0):null.
6. COVID-19_PPE_illustrations-p.pdf [Internet]. [cited 2020 Apr 3]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/downloads/COVID-19_PPE_illustrations-p.pdf
7. 2003 - Interim Domestic Guidance on the Use of Respirator.pdf [Internet]. [cited 2020 Apr 3]. Available from: <https://www.cdc.gov/sars/clinical/respirators.pdf>
8. Former EPA head admits she was wrong to tell New Yorkers post-9/11 air was safe | US news | *The Guardian* [Internet]. [cited 2020 Apr 3]. Available from: <https://www.theguardian.com/us-news/2016/sep/10/epa-head-wrong-911-air-safe-new-york-christine-todd-whitman>
9. Farley R. Trump, Biden and the Defense Production Act [Internet]. *FactCheck.org.* 2020 [cited 2020 Apr 3]. Available from: <https://www.factcheck.org/2020/04/trump-biden-and-the-defense-production-act/>
10. News ABC. FBI warns of potential surge in hate crimes against Asian Americans amid coronavirus [Internet]. *ABC News.* [cited 2020 Apr 3]. Available from: <https://abcnews.go.com/US/fbi-warns-potential-surge-hate-crimes-asian-americans/story?id=69831920>

11. ipsupport. The Society of Asian Academic Surgeons (SAAS) [Internet]. [cited 2020 Apr 4]. Available from: <https://www.asiansurgeon.org/>
12. April 3 O, 2020. ACS Statement on Discrimination [Internet]. American College of Surgeons. [cited 2020 Apr 4]. Available from: <https://www.facs.org/covid-19/discrimination>
13. CDC. Coronavirus Disease 2019 (COVID-19) [Internet]. Centers for Disease Control and Prevention. 2020 [cited 2020 Apr 4]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html>
14. Doctors Are Concerned That Black Communities Might Not Be Getting Access To Coronavirus Tests [Internet]. BuzzFeed News. [cited 2020 Apr 3]. Available from: <https://www.buzzfeednews.com/article/nidhiprakash/coronavirus-tests-covid-19-black>
15. April 1 O, 2020. American College of Surgeons Statement on PPE Shortages during the COVID-19 Pandemic [Internet]. American College of Surgeons. [cited 2020 Apr 3]. Available from: <https://www.facs.org/covid-19/ppe/acs-statement>
16. Navy relieves captain who raised alarm about COVID-19 on ship [Internet]. NBC News. [cited 2020 Apr 3]. Available from: <https://www.nbcnews.com/news/military/navy-expected-relieve-captain-who-raised-alarm-about-covid-19-n1175351>
17. Galtung J. Violence, Peace, and Peace Research. *J Peace Res.* 1969;6(3):167–91.
18. Bleich SN, Findling MG, Casey LS, Blendon RJ, Benson JM, SteelFisher GK, et al. Discrimination in the United States: Experiences of black Americans. *Health Serv Res.* 2019;54 Suppl 2:1399–408.
19. Good Neighbor policy. In: Wikipedia [Internet]. 2020 [cited 2020 Apr 3]. Available from: https://en.wikipedia.org/w/index.php?title=Good_Neighbor_policy&oldid=947890874

Figure 1: The overlapping domains of Trauma-Informed Care

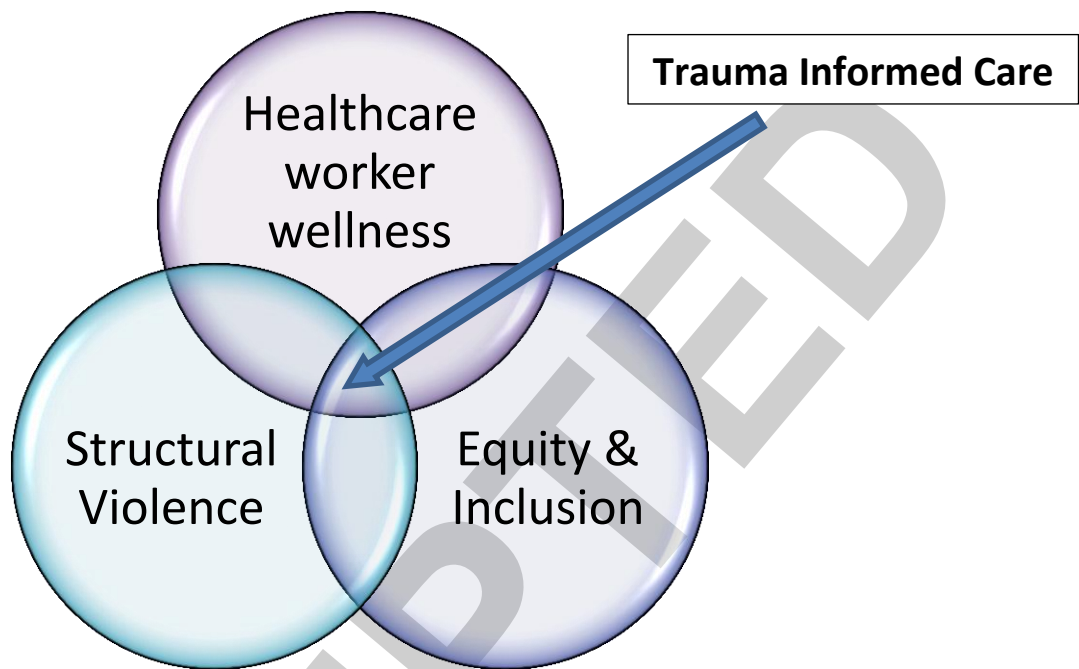


Figure 2





Reducing Racism & Xenophobia Following Public Health Emergencies: COVID-19






<p>Fear + Anxiety = Social Stigma</p> <ul style="list-style-type: none"> Asian Descent Italian Descent Travelers Healthcare Professionals 	<p>Stigmatized Group:</p> <ul style="list-style-type: none"> Avoidance or Rejection Healthcare, Education, Employment Physical Violence, Verbal Abuse 	<p>Stop The COVID-19 Stigma COVID-19 Does Not Discriminate</p> <ul style="list-style-type: none"> Bigotry Is Not Acceptable Maintain Patient Privacy Raise Awareness ≠ Fear (Accurate Information) Speak Out Against Negative Behaviors Don't Reinforce Stereotypes Social Support 	
<p>EAST Equity, Quality, & Inclusion Taskforce #CoVisuals http://bit.ly/EAST4ALL</p>		<p>#EAST4ALL</p>	  

Figure 3: #EAST4ALL Co-Visual Infographic

ACCEPTED