



Nonpharmaceutical Interventions for Health Care Providers

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Nonpharmaceutical interventions (NPIs) are public health measures that play a critical role in preventing and/or controlling the transmission rates and impact of SARS-CoV-2, the virus that causes COVID-19.

The daily work of anesthesiologists and their team of health care professionals (those who provide direct bedside care in ORs, emergency departments, and critical care units, as well as in labor and delivery suites, and other procedural locations) puts them and their families at risk for acquiring COVID-19. For this reason, many U.S. and international organizations and professional societies have published guidelines or recommendations for the prevention of infection transmission to health care providers for perioperative care during the COVID-19 pandemic.

The *ASA Monitor* spoke with Harsha Shanthanna, MD, PhD, MSc, FRCPC, to discuss his insights on NPIs in health care providers and why they are still essential to curbing the spread of COVID-19. Dr. Shanthanna is an Associate Professor and the Associate Chair of Research of the Department of Anesthesia at McMaster University, as well as an anesthesiologist and chronic pain physician at St. Joseph's Hospital, Hamilton, Ontario, Canada. Recently, Dr. Shanthanna led an international team of experts to create a set of clinical practice recommendations for the care of chronic pain patients during the COVID-19 pandemic (*Anaesthesia* 2020;75:935-44).

ASA Monitor: *What are some daily NPIs you use in your practice during the pandemic?*

Dr. Shanthanna: As physicians, we realize prevention is better than cure and preventing infectious diseases involves being aware of our daily routine and



practices that could impact the spread of COVID-19. I am involved in the provision of OR anesthesia as well as chronic pain services. Personally, I ensure that I practice frequent hand-washing or use disinfectant hand scrubs and wear a protective mask. Since being in close contact or crowded areas is a risk, I ensure physical distancing. At our workplace (St. Joseph's Hospital), there is consistent emphasis on these measures that have helped to reduce outbreaks of infection. At our chronic pain clinics, we put in place similar measures to prioritize clinical care, and we have adapted with virtual clinics for many patients. Even within our consensus recommendations for chronic pain practice, we emphasize the importance of similar simple interventions that can be adapted in clinical care (*Anaesthesia* 2020;75:935-44). I also take specific measures while providing care for a surgical patient to avoid contamination of surface areas and ensuring to dispose of potentially infective materials. Other measures include only virtual meetings and education sessions and avoiding travel. I think, as physicians, we also have the responsibility to educate patients and others about the importance of these measures and adapt our work and family life accordingly.

ASA Monitor: *What are some appropriate PPE that are recommended during anesthesia for patients with suspected or confirmed COVID-19 who undergo aerosol-generating procedures to prevent the transmission of infection to the anesthetic team?*

Dr. Shanthanna: There have been publications, experiments, and recommendations on the appropriate and safe use of PPE during anesthesia care. Many of these are supported by recognized anesthesia organizations such as the ASA,

CAS, or ASRA. I do not intend to give any alternative messages. We have to ensure that we are up to date with the most recent changes and equipment. As an anesthesiologist involved with aerosol-generating procedures, I need to be concerned about myself, the patient, and others around. Appropriate PPE for myself should involve a properly fitting N95 mask, eye protection and face shield, full body gown (waterproof or water repellent), and gloves. Powered air purifying respirators (PAPRs) are suggested to be used if N95 masks are not available or tested. Personally, I use at least two layers of gloves and remove the external one after an aerosol-generating procedure. Proper donning and doffing and disposal of contaminated PPE is as important as using them. Similar precautions must be taken by other members of the anesthetic team, apart from caring for the patient in an appropriately ventilated and designated OR.

ASA Monitor: *Reports describe an increasing attitude of apathy or resistance toward adherence to NPIs to contain COVID-19, termed pandemic fatigue. While there is no one-size-fits-all approach, what are some strategies you would employ to combat this demotivation and promote compliance?*

Dr. Shanthanna: I think it is too easy to describe all dissenters of NPIs as having pandemic fatigue. Unfortunately, there are many non-believers in science who take this opportunity to discredit scientific medicine, and we should continue to educate them. However, it is definitely true that a pandemic fatigue has set in. I think it is because this pandemic has changed so much in our lives and it has been so unpredictable. We also cannot ignore the fact that many other health issues, especially mental health problems, have been ignored because they cannot be appropriately prioritized. While there are no specific solutions to overcome pandemic fatigue, leaders at every level need to engage the people who work for them, including students, to inform the gains they have achieved

despite incredible personal and professional challenges and acknowledge their efforts. We need to encourage resilience and must remember that there were no alternatives, and there continue to be no alternatives. Enforcement of restrictions should be accompanied by consistent messages. Along with all these measures, exceptional cases of non-compliance have to be restrained or acted upon. Otherwise, people who ensure adherence to pandemic measures could lose trust in a system or place of work. It is also a time for leaders and institutes to recognize people who have gone beyond their regular call of duty, such as those working in long-term nursing homes, health care providers working in the emergency room, intensive care unit, and other areas, and physicians and nurses helping with vaccine rollout programs. Both sad stories and good stories can help to motivate in their own way and encourage compliance with NPIs.

ASA Monitor: *Why is it important for health care providers to maintain NPIs, such as physical distancing and face mask usage, even though many health care workers have already been vaccinated?*

Dr. Shanthanna: NPIs are simple measures, but when practiced by most or all in the community, workplace, or a country, they still make a big impact. As health care providers, we have recognized this even before the COVID-19 pandemic. We have learned this from many other communicable diseases. Specific to the present pandemic, despite the availability of vaccines, we continue to face threats of newer variants by mutation and we still do not fully understand the protection that vaccines offer toward these variants. Moreover, for vaccines to work to decrease community spread, a majority of the population needs to be vaccinated and protected. Scientific knowledge and evidence are not a fixed entity – it changes as newer evidence emerges. I think it is essential for health care providers to not relax in their use and encouragement of NPIs and follow advice from local public health authorities with regard to any measures, including the use of NPIs and physical distancing. ■

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