COMMENTARY - UNSOLICITED



The silver linings of COVID-19: Uplifting effects of the pandemic

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The COVID-19 pandemic has lined our psyches with anxiety, uncertainty, and foreboding. Emergency physicians have coexisted with it for nearly a year and its tentacles have wrapped ever more tightly around us. Many in emergency medicine have experienced the negative and sometimes tragic consequences of COVID-19 either in their work or in their own families. To balance the negativity surrounding COVID-19, we postulate that there may be some silver linings: positive consequences resulting from the pandemic that have stimulated changes in clinical medicine delivery and impacted physician wellbeing. Globally 2.2 million people have died from COVID19. We dedicate this article in remembrance of those patients and their families.

SILVER LINING #1: THE RAPID DEVELOPMENT OF TELEMEDICINE

Telemedicine has taken off exponentially during the pandemic, increasing access to patients with mobility problems, augmenting regular check-ins from disease surveillance teams, ^{2,3} and enabling rural patients to access a larger physician network without the geographic restraints of required in-person appointments. Telemedicine has reduced health care costs for patients and providers ⁴ and decreased the risk of transmitted infection. International, national, and local medical organizations have seen increased attendance at virtual meetings compared to face-to-face meetings because of the convenience of telemedicine platforms.

SILVER LINING #2: MORE TIME FOR FAMILY AND SELF

Physicians have always faced the tension between clinical work and time at home with their families. With virtual meetings and conferences,

physicians can practice without commuting to the hospital or traveling to other cities. Because of quarantine practices, families have spent more time together enjoying new activities. Whether rediscovering the outdoors, such as walking, running, or exploring neighborhoods on foot; working on home projects; or assisting children with tele-education, this invaluable nonclinical time is a gift for many physicians who have sacrificed time from their families for patient care. These meaningful interactions between family members play an important role in the well-being and resilience of every emergency physician.

SILVER LINING #3: PROGRESSIVE USE OF PERSONAL PROTECTIVE EQUIPMENT

Prior to COVID-19, providers in head-to-toe personal protective equipment (PPE) were generally seen only in the operating room, trauma bay, or outpatient surgery. For centuries, physicians have been risking infection from body fluid exposure, and yet prior to COVID-19, most physicians rarely donned more than latex gloves or disposable masks. The pandemic has forever changed our attitude toward PPE. Clinicians are now more cognizant and adherent to PPE protocols in clinics, hospitals, and emergency departments. Hospitals have made the regular supply of these critical pieces of equipment a stark priority. The hope is that future PPE, including eye shields, gowns, and masks will, be as commonplace outside the examination room as were boxes of gloves in the pre-COVID-19 era.

SILVER LINING #4: RESPECT FOR FRONTLINE PROVIDERS

Frequently emergency clinicians experience criticism from other medical colleagues for our sometimes cursory "sick/not sick" view,

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where focus is directed on the most acute or life-threatening need of the patient. The sheer volume of patients presenting for care during this pandemic and emergency medicine's unique training to triage and stabilize those with critical symptoms have given our non-emergency colleagues and specialists a fresh perspective on the vital role of frontline providers. Throughout this pandemic, the validation and support received from peers across all disciplines has buoyed frontline providers tremendously.

SILVER LINING #5: IMPROVED MANAGEMENT OF RAPIDLY PROGRESSING HYPOXIA

COVID-19 has forced physicians to better manage acute respiratory failure while being resource conscious. In the past, a patient presenting with mild respiratory distress may have been admitted overnight to monitor oxygen levels, resulting in an expensive hospital admission. The pandemic has demonstrated, however, that a percentage of patients can be discharged home, allowing patients to self-monitor with handheld pulse oximeters and check in regularly via telemedicine. This strategy has reduced unnecessary ED visits. For patients presenting with severe respiratory distress, home monitoring will not be appropriate. High-flow nasal oxygen treatment, routinely utilized in pediatric settings, is now commonly prescribed for adult patients with COVID-19, preventing intensive care unit admissions, staving off BIPAP and intubation, and leading to less overall morbidity. 6

SILVER LINING #6: ENCOURAGING GOALS OF CARE CONVERSATIONS AND ADVANCE CARE PLANNING

Society's awareness of pandemic-caused scarce health care resources has stimulated conversations about setting health care goals and plans for end-of-life medical care with patients and family members. COVID-19 patients requiring mechanical ventilation⁷ have high mortality rates, and further advanced interventions may stave off death rather than prolong a meaningful life. This pandemic has compelled physicians and patients to be more aware of their own mortality, prompting difficult goals of care conversations. These crucial advance care planning discussions, based on individual values, shape future medical care preferences, and help avert futile treatment and prolongation of suffering for patients and families.

SILVER LINING #7: ADDRESSING PHYSICIAN MENTAL HEALTH AND DISCLOSURE POLICIES

Physicians have the highest suicide rate of any profession. ⁹ Unfortunately COVID-19 has increased suicidal ideation in essential

workers. Studies suggest that medical students and physicians who die by suicide were fearful of seeking care that would be disclosed on their applications for residency, hospital privileges, and state licensure. ¹⁰ Some states ask invasive mental health questions unlinked to current impairment that contain confusing, punitive, or adversarial language. Current legislation ¹¹ awaiting Congressional approval supports removal of mental health questions from state licensing applications, with the goal of reducing barriers to physicians seeking treatment.

COVID-19 has challenged emergency physicians in ways we never imagined, so a brief focus on these silver linings may give us respite. While this widespread loss of life will always be unacceptable and tragic, these unexpected uplifting effects from the pandemic have the potential to improve our delivery of health care now and in the future.

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