Editorial



COVID - 19: Scenes From A Science Fiction Movie...

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A new coronavirus (covid 19–coronavirus disease 2019), similar to Middle East respiratory syndrome coronavirus (MERS-CoV) and severe acute respiratory syndrome coronavirus (SARS-CoV), emerged in late December 2019 from Wuhan, China causing respiratory disease¹.

An outbreak of COVID-19 has spread throughout China and worldwide. Up until today (7/4/2020) 1.349.956 confirmed cases and 74.822 deaths were recorded². As of April 7, 2020, 81.740 patients in China had tested positive for COVID-19 and 3.331 deaths had occurred². World Health Organization (WHO) on March 11, 2020 declared COVID-19 a pandemic, pointing the sustained risk of further global spread³. The European countries most affected are Spain - 136.675 confirmed cases and 13.341 deaths - and Italy - first European country affected with 132.547 confirmed cases and 16.523 deaths -up until today (7/4/2020)².

U.S.A today leads the world in confirmed, re©2020 Society of Anesthesiology and Intensive Medicine of Northern Greece
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ported coronavirus cases, surpassing China with 367.650 confirmed cases and 10.943 deaths².

Various aggressive measures are implementing by countries around the world to slow and try to contain transmission of COVID-19worldwide, in order to "flatten the epidemic curve of COVID-19."In countries most affected, health system's capacity to respond to this outbreak of COVID-19 has been under enormous pressure. Doctors in the region of Lombardy (9 million people), the most seriously affected region in Italy face questions of wartime triage as there is major strain on critical care facilities in hospitals⁴. That led Italian College of Anesthesia, Analgesia, Resuscitation and Intensive Care (SI-AARTI), to issue guidelines on what to do in a period that bordered on wartime "catastrophe medicine." Authors suggest that instead of providing intensive care to all patients who need it, it may become necessary to follow "the most widely shared criteria regarding distributive justice and the appropriate allocation of limited health resources"^{5,6}. Similar triage is applying emergency departments in Spain due to adequate resources or staff, while in New York which is now the epicenter of the coronavirus in the u.s.a, the American College of Physicians asked the New York Governor, Andrew M. Cuomo, to issue an executive order granting doctors immunity from liability for the decisions they make "when the need for allocation of ventilators results in some patients being denied access"⁷.

As the COVID-19 epidemic expands and the disease progresses, health care professional's infection is a widespread problem throughout Europe and USA. It is estimated that up to 20 percent of healthcare professionals, have been infected and put out of commission in Italy⁸. Also, as of April 1 2020, according to Medscape, more than 100 doctors and other healthcare professionals worldwide have died treating patients of COVID-19⁹.

Also, the article of Adams JG et al described that the pressure on the health care workforce is 2-fold, first is the potentially overwhelming burden of illnesses that stresses health system capacity and the second is the adverse effects on health care workers, including the risk of infection for them and for their families¹⁰.

Clinicians in various countries report shortages of personal protection equipment (PPE) during the outbreak. That led WHO to issue interven©2020 Society of Anesthesiology and Intensive Medicine of Northern Greece
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tions in order to minimize the need for PPE, while protecting healthcare workers from exposure to the COVID-19 virus in healthcare settings¹¹. European Centre for Disease Prevention and Control (ECDC), Centers for Disease Control and Prevention (CDC) and other national public health organizations followed issuing recommendations for economizing the availability of PPE^{12,13,14}.

PPE shortages in COVID-19 outbreak can be very challenging for healthcare systems.

Greek national public health organization (EO-DY) regarding low supply of PPE issued some "strange" recommendations: "In serious shortage in PPE, health care personnel may not use gloves or protective robes but may use the same eye protection (glasses or face shield) and the same filtering facepiece respirator mask, which can be removed if damaged, soiled or after leaving the ward. If a simple surgical mask is used, it should be replaced whenever the inside is moistened. Instead of gloves, it is recommended to apply hand hygiene and the use of an alcoholic antiseptic after every contact with a patient. Aerosol generating procedures are excluded''.14. At the same time, CDC suggests three methods for decontamination of respirators when supplies are critically low (crisis standards): Decontamination with ultraviolet (UV) light, use of hydrogen peroxide vapor and use of moist heat¹⁵. Also, Hick JL et al, in National Academy of Medicine points to the fact that health care systems during COVID-19 pandemic should develop strategies such as preparing, conserving, substituting, adapting, re-using, and re-allocating resources. The article emphasizes to the fact that providers should be prepared to re-use items such as endotracheal tubes, nasogastric tubes, oxygen delivery masks and tubing, and even ventilator circuits with appropriate high-level disinfection and sterilization¹⁶.

BUT, IT IS IMPERATIVE TO POINT OUT THE IMPORTANCE TO KEEP OURSELVES AND OUR COLLEAGUES SAFE.

Last but not least must be noted that it is impressive during this outbreak that the scientific community responded in a remarkably short time with publishing scientific announcements and papers, in order to help health practitioners in the management of COVID-19 pandemic. All major scientific journals have free access to articles and information concerning COVID-19. Laboratories are working 24/7 to develop rapid diagnostic tests and vaccines, while clinical trials with various treatments are currently performed worldwide in order to find reliable treatment for COVID-19 patients. Never before were scientists adapted so quickly, with the sole purpose to facilitate COVID-19 patient management.

The Society of Anesthesiology and Intensive

Medicine of Northern Greece in it's announce©2020 Society of Anesthesiology and Intensive Medicine of Northern Greece
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ment, calls its members to maintain their composure and their professional readiness and to be in constant communication for information with the local Coordination and Hospital infection Control Committees in order to avoid dangerous (sometimes) homemade protective gear and equipment. Although there is little evidence in the literature at the moment, concerning the effective treatment and management of Covid-19 pandemic, guidance and suggestions constantly emerge from various scientific societies. The Society of Anesthesiology and Intensive Medicine of Northern Greece urges its members to visit often the website of EODY and also other scientific sites (Hellenic Anesthesiology Society, Hellenic Intensive Care Society, ESICM, ESA, Surviving Sepsis Campaign, Medical Associations, etc.), as each country and each Hospital manages its own way pandemic (following international scientific and state guidelines).

Anesthesiologists, Intensivists and other perioperative care providers are some of the main specialists at the forefront of Covid-19 patient care management. Healthcare professionals during this pandemic and especially those who have to provide respiratory care of patients with COVID-19 are extremely vulnerable to this infection.

KEEP YOURSELF AND YOUR COLLEAGUES SAFE.

REFERENCES

- World Health Organization. Rolling updates on coronavirus disease (COVID-19). Updated 3 April 2020. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen. (Accessed April 2020).
- WorldoMeters.info/coronavirus tracks world statistics. https://www.worldometers .info/coronavirus/?utm_campaign=homeA dvegas1. (Accessed April 2020).
- 3. WHO announces COVID-19 outbreak a pandemic.http://www.euro.who.int/en/heal th-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces-covid-19 -outbreak-a-pandemic. (Accessed April 2020).
- 4. Remuzzi A, Remuzzi G. COVID-19 and Italy: what next?, www.thelancet.com Published Online March 12, 2020 https://doi.org/10.1016/ S0140-6736(20)30627-9.
- 5. Raccomandazioni di etica clinica per l'ammissione a trattamenti intensivi e per la loro sospensione, in condizioni eccezionali di squilibrio tra necessità e risorse disponibili(PDF) (Technical report) (in Italian). Italian College of Anesthesia, Analgesia, Resuscitation and Intensive Care (SIAARTI). http://www.siaarti.it/SiteAssets/News/COVID19-2020

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- 2020 Covid19- 2020Raccomandazioni-2020etica-2020clinica.pdf. (Accessed April 2020).
- Mounk, Yascha."The Extraordinary Decisions Facing Italian Doctors". The Atlantic. Archived from the original on 12 March 2020. https://www.theatlantic.com/ideas/archive/2020/03/who-gets-hospital-bed/607807/.(Accessed April 2020).
- 7. Goldstein J, Rothfeld M Weiser B. Patient Has Virus and Serious Cancer. Should Doctors Withhold Ventilator? The New York Times. https://www.nytimes.com/2020/04/01/nyregion/coronavirus-doctors-patients.html (Accessed April 2020).
- 8. COVID-19: Protecting health-care workers. www.thelancet.com. Published Online March 21, 2020. Online/Health Policyhttps://doi.org/10.1016/ S0140-6736(20)30627-9. (Accessed April 2020).
- Medscape's Coronavirus Resource Center.
 In Memoriam: Healthcare Workers Who
 Have Died of COVID-19.
 https://www.medscape.com/viewarticle/92
 7976. (Accessed April 2020).
- 10. Adams JG, WallsRM. Supporting the Health Care Workforce During the COVID-19(Accessed April 2020). Global Epidemic. JAMA Published online March 12, 2020. https://jamanetwork.com /journals/jama/fullarticle/2763136(Accesse d April 2020).

- 11. World Health Organization. Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19). Interim guidance 19 March 2020. https://apps.who.int/iris/bitstream/handle/1 0665/331498/WHO-2019-nCoV-IPCPPE _use-2020.2-eng.pdf. (Accessed April 2020).
- 12. European Centre for Disease Prevention and control (ECDC). Infection prevention and control and preparedness for COVID-19 in healthcare settings. Second update 31 March 2020. https://www.ecdc.europaeu/sites/default/files/documents/Infection-prevention-control-for-the-care-of-patients-with-2019-nCoV-healthcare-settings_update-31-March-2020.pdf. (Accessed April 2020).
- 13. Centers For Disease Control and Prevention (CDC). COVID-19: Strategies to Optimize the Supply of PPE and Equipment. https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html. (Accessed April 2020).

- 14. Εθνικός Οργανισμός Δημόσιας Υγείας. Οδηγίες για τη χρήση του εξοπλισμού ατομικής προστασίας σε περίπτωση ελλείψεων- Επικαιρότητα 23/3/2020. https://eody.gov.gr/odigies-gia-ti-chrisitoy-exoplismoy-atomikis-prostasias-seperiptosi-elleipseon/. (Accessed April 2020).
- 15. Centers For Disease Control and Prevention (CDC).Decontamination and Reuse of Filtering Facepiece Respirators. https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/ decontamination-reuse-respirators.html. (Accessed April 2020).
- 16. Hick J, Hanfling D, Wynia M, et al. Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-National Academy of Medicine. Published Online March 5. 2020. https://nam.edu/duty-to-plan-health-carecrisis-standards-of-care-and-novelcoronavirus-sars-cov-2/(Accessed April 2020).