

## Novel Coronavirus: Pandemic Pandemonium Panic

Christopher Jenks<sup>1\*</sup> and Jarrod Knudson<sup>2</sup>

<sup>1</sup>*Pediatric Critical Care Medicine, Children's Heart Center, Blair E Batson Children's Hospital, University of Mississippi Medical Center, USA*

<sup>2</sup>*Pediatric Critical Care Medicine and Cardiology, Children's Heart Center, Blair E Batson Children's Hospital, University of Mississippi Medical Center, USA*

**\*Corresponding Author:** Christopher Jenks, Pediatric Critical Care Medicine, Children's Heart Center, Blair E Batson Children's Hospital, University of Mississippi Medical Center, USA.

**Received:** April 18, 2020; **Published:** May 15, 2020

### Abstract

The nation is suffering from the novel coronavirus named COVID 19. This has led to border closures and the destruction of the economy. Initially, the mortality rate was thought to be unacceptably high, but recent evidence suggests that the mortality rate might be much lower. Healthcare providers should remain calm and not feed into the panic encouraged by the mainstream media. We should continue to provide standard of care and use standard precautions to help prevent the spread of pathogens.

**Keywords:** Novel Coronavirus; SARS-CoV 2; COVID 19; COVID 19 Panic; COVID 19 Pandemonium

### Introduction

The public is suffering from pandemic panic over the novel coronavirus dubbed COVID 19. This has led to border closures, travel bans, panic buying (toilet paper), cancellation of major sporting events (including the 2020 Tokyo Olympic Games!), closure of restaurants, and thousands of small businesses. All of these measures taken to enhance social distancing. The alarm in the general public comes as no surprise, given the media coverage surrounding the pandemic. However, the mayhem in the ranks of the healthcare community is befuddling, to say the least. The bedlam has surprisingly led to both patients' families and healthcare providers stealing personal protective equipment (PPE) from hospitals.

Many of us have served as healthcare providers during multiple epidemics including: the Severe Acute Respiratory Syndrome (SARS) outbreak of 2003 - 2004, the H1N1 influenza outbreak 2009 - 2010, the Middle East Respiratory Syndrome (MERS) outbreak of 2012 - 2013, the Eboli outbreak of 2014 - 2016 and now the COVID 19 pandemic of 2019. We believe knowledge is the path toward remaining calm and getting through this new pandemic. We should focus on facts, not fear.

### What is COVID 19?

The novel coronavirus is called SARS-CoV 2 or COVID 19. Up to this point, there have been six coronaviruses classified as follows: 229E (alpha coronavirus), NL63 (alpha coronavirus), OC43 (beta coronavirus), HKU1 (beta coronavirus), Middle East Respiratory Syndrome (MERS-CoV), and Severe Acute Respiratory Syndrome (SARS-CoV). The first four commonly infect people around the world and are included in routine testing panels used during winter months throughout the Western healthcare systems.

### Where did COVID 19 come from?

The coronaviruses were initially described in the 1960s, with the first known human coronaviruses being CoV 229E and CoV OC43 [1]. COVID 19 was initially described in Wuhan, China, in a group of 27 patients, December 2019 [2]. The exact origin is unknown but thought to be zoonotic via bats [3]. The two types of bats that were found to be potential carriers were Chinese horseshoe bats (*Rhinolophus sinicus*) and Intermediate horseshoe bat (*Rhinolophus affinis*) [3].

### COVID 19 transmission, symptoms, and mortality

The incubation period is approximately five days, with most displaying symptoms by day 12 [4]. The death rate for COVID 19 is estimated to be about 3 - 5% [5]. By comparison, the mortality rate for SARS-CoV was approximately 10%, and for MERS-CoV about 35% [1]. The actual mortality rate for COVID 19 has been called into question as it might be much lower due to uncertainty surrounding the actual rate of asymptomatic carriers and patients with respiratory symptoms that have not been and will not be tested [6]. Some have estimated

that for each patient testing positive, there are at least ten infected patients that have not been tested. Additionally, an accurate mortality rate requires proper determination of the actual cause of death, not just the presence of a positive test for the virus. For example, Italy had a high case-fatality rate. However, when researchers examined COVID 19 deaths, they found that anyone testing positive who died for any reason, regardless of underlying medical co-morbidities, was classified as a COVID 19 fatality [7]. Proper classification with regard to the cause of death would lower the reported mortality rate. This, in combination with knowledge surrounding the actual caseload denominator, would decrease the mortality rate further. As of the writing of this manuscript, the stated mortality for COVID 19 in the United States is 4.5%.

The new coronavirus causes symptoms that are indistinguishable from other known viruses [5].

**Symptoms include the following:**

- Fever
- Cough
- Sore throat
- Difficulty breathing.

COVID 19 is diagnosed via a real-time reverse transcription-polymerase chain reaction (RT-PCR) [8]. The person-to-person mode of transmission is through respiratory droplets. Prevention measures include the routine precautions for other known respiratory viruses such as handwashing, use of hand sanitizers, and avoiding touching the face [1]. Other measures that have been taken are social distancing, canceling schools, and sports games [8]. Those admitted to the intensive care unit are typically older, with a median age of 66 years and 72% more likely to have comorbid conditions [5].

There are currently five levels of severity, which are the following: mild, severe, acute respiratory distress syndrome (ARDS), and sepsis [2]. Treatment is mainly supportive, with the more severe cases being treated according to ARDS and sepsis guidelines [2,9]. There is some evidence that the combination of hydroxychloroquine and azithromycin may be beneficial, but more studies are necessary to determine if the treatment is truly beneficial [10]. Currently, it is unknown if extracorporeal membrane oxygenation (ECMO) life support would provide any benefit to these patients, but it would likely confer similar benefits as in ARDS patients [9]. There are, however, concerns about infecting healthcare workers if a COVID 19 patient is placed onto ECMO. This represents potential major exposure and significant resources that could potentially be utilized elsewhere in the hospital. Each institution should carefully consider whether to offer ECMO long before the need arises, so the decision is not made hastily during a time of panic. There are not currently any vaccines for COVID 19; however, trials are underway, raising the possibility of availability within a year [9]. Unfortunately, given the United States' experience with influenza, many in the general population may not willingly take an available immunization once developed.

Due to the models predicting massive deaths (later found to be unreliable), many countries have implemented preventative measures [11]. These preventative measures by countries such as closing borders, decreasing public/social gatherings, and restriction of travel are only temporary measures that are not sustainable over the long term [9]. Due to alcohol abuse alone, 88,000 people die every year [12]. Approximately 1 in 5 women and 1 in 12 men experience domestic violence, and 16% of all homicides are due to domestic violence [13]. Suicide claims one person every 11 minutes resulting in about 47,000 deaths per year [14]. All of these conditions are likely to increase due to the increasing unemployment due to the quarantine orders. Given that the current death count for COVID 19 in the United States is approximately 25,000 (as of the writing of this manuscript) and the yearly influenza deaths in the United States range between 30,000 - 60,000, it seems that panic is overriding good judgment. Much of the panic is due to digital platforms and overrepresentation by the news media [15].

Standards of care throughout the US healthcare system have changed dramatically as a result of the pandemic pandemonium. Examples include patients presenting to emergency departments with viral-like symptoms (fever, cough, shortness of breath) and wheezing experiencing significant delays in the delivery of standard care measures such as bronchodilators and steroids. There is, however, no delay in rushing the patient to a negative pressure area and swabbing for COVID 19. The pandemic chaos has paralyzed our healthcare systems'

ability to provide routine standards of care for non-COVID 19 patients. Containment of the novel pathogen should remain a priority, but not at the expense of providing sub-standard care for many routine illnesses.

### Conclusion

The COVID 19 virus is likely not a super pathogen and will likely end with a mortality rate similar to the influenza virus. We, as health-care providers, should remain calm and not feed into the anxiety and panic encouraged by the mainstream media. We should continue to provide standard of care and use standard precautions to help prevent the spread of pathogens, for that is how we provide compassionate care during a pandemic.

### Bibliography

1. Ashour HM., *et al.* "Insights into the Recent 2019 Novel Coronavirus (SARS-CoV-2) in Light of Past Human Coronavirus Outbreaks". *Pathogens* 9.3 (2020): E186.
2. Cheng ZJ and Shan J. "2019 Novel coronavirus: where we are and what we know". *Infection* 48.2 (2020): 155-163.
3. Mackenzie JS and Smith DW. "COVID-19: a novel zoonotic disease caused by a coronavirus from China: what we know and what we don't". *Microbiology* (2020): MA20013.
4. Lauer SA., *et al.* "The Incubation Period of Coronavirus Disease 2019 (COVID-19) From Publicly Reported Confirmed Cases: Estimation and Application". *Annals of Internal Medicine* (2020).
5. Arabi YM., *et al.* "COVID-19: a novel coronavirus and a novel challenge for critical care". *Intensive Care Medicine* (2020).
6. Biondi-Zoccai G., *et al.* "SARS-CoV-2 and COVID-19: facing the pandemic together as citizens and cardiovascular practitioners". *Minerva Cardioangiologica* (2020).
7. Onder G., *et al.* "Case-Fatality Rate and Characteristics of Patients Dying in Relation to COVID-19 in Italy". *The Journal of the American Medical Association* (2020).
8. Jernigan DB., *et al.* "CDC. Update: Public Health Response to the Coronavirus Disease 2019 Outbreak - United States (2020)". *Morbidity and Mortality Weekly Report* 69.8 (2020): 216-219.
9. Fisher D and Heymann D. "The novel coronavirus outbreak causing COVID-19". *BMC Medicine* 28 18.1 (2020): 57.
10. Gautret P., *et al.* "Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial". *International Journal of Antimicrobial Agents* (2020): 105949.
11. McCarthy A. COVID-19 Projection Models Are Proving to Be Unreliable (2020).
12. CDC. Excessive Alcohol Use (2020).
13. CDC. Preventing Intimate Partner Violence (2020).
14. CDC. Preventing Suicide (2020).
15. Chiolero A. "Covid-19: a digital epidemic". *British Medical Journal* 368 (2020): m764.

**Volume 9 Issue 6 June 2020**

**©All rights reserved by Christopher Jenks and Jarrod Knudson.**