## **AHNA COVID-19 Update**

Tuesday, April 14, 2020



The American Holistic Nurses Association (AHNA) supports the Center for Disease Control (CDC) and the World Health Organization (WHO) in acknowledging the immediate global public health risk of the COVID-19.

This update is intended to provide our members with the most accurate and up to date information on the date of issuance.

# **Clinical Updates**

Several studies have documented SARS-CoV-2 infection in patients who never develop symptoms (asymptomatic) and in patients not yet symptomatic (presymptomatic).

#### **Weekly Updates:**

- Viral shedding may antedate symptoms by 1-2 days and are highest in the earliest phases of infection.
- People who are not ill, will not as carefully take measures to avoid spread.
- This is in large part the rationale behind universal mask use: most 'homemade' masks do not protect the wearer from viral particles of aerosol size. The purpose of the CDC current recommendation is to protect others from an asymptomatic wearer. Continued Social Isolation is needed especially in vulnerable populations

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**Signs & Symptoms Comparison of Differential Diseases** 

	COVID-19	Influenza	Cold
Cough	Common (Dry)	Common (Dry)	Common
Fatigue	Common	Common	Some Cases
Fever	Common	Common	Some Cases
Shortness of Breath	Common	Uncommon / None	Uncommon / None
Aches and Pains	Some Cases	Common	Some Cases
Diarrhea	Some Cases	Some Cases	Uncommon / None
Sore Throat	Some Cases	Common	Common
Stuffy or Runny Nose	Some Cases	Common	Common
Headache	Uncommon / None	Common	Some Cases
Itchy or Watery Eyes	Uncommon / None	Uncommon / None	Common
Sneezing	Uncommon / None	Common	Common
Stomach Pain	Uncommon / None	Some Cases	Uncommon / None
Vomiting	Uncommon / None	Some Cases	Uncommon / None

# American College of Cardiology recommendation for Home care of patients with Pre-Existing Cardiac Conditions:

Patients taking enzyme inhibitors (ACE-Is) or angiotensin receptor blockers (ARBs) should not be discontinued if recovering at home.

## **Common Emergency Presentation:**

In addition to previously reported symptoms of Anosmia or Ageusia, Fever (98%) Non-productive cough (59-82%), Fatigue (44-70%), Anorexia (40-84%), Shortness of breath (31-41%), Sputum production (28-33%), Myalgia (11-35%), (<10%) Sore throat, GI upset / Diarrhea, Dizziness, Headache.

May report chest pain, palpitations.

Observations: Hemoptysis, Idiopathic dysrhythmias, Atrial Fibrillation, or Malignant tachydysrhythmia, and elevated troponin may be noted. Of consequence, troponin elevation trending upward has been a sign of impending rapid deterioration, and / or rapid onset heart failure, or cardiomyopathy secondary to severe respiratory disease; more widely observed in patients with pre-existing conditions. Cardiac arrest has occurred.

# Specimen collection and interpretation:

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Initially, all testing only done at CDC, but in U.S. local health departments and other hospital and community approved labs are able to test once assays validated, per FDA. <a href="https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd">https://www.fda.gov/medical-devices/emergency-use-authorizations#covid19ivd</a>

- Quest and LabCorp offer PCR testing (3-4d turnaround), specimens must be performed in a medical office/institution, not at a laboratory site.
- Rapid molecular tests now offered (GeneXpert Cepheid < 45 min, ID NOW COVID-19 Abbot < 15 min).</li>
- FDA Emergency approved Serological
   Testing: <a href="https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd">https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd</a>

## Viral kinetics / immunopathogenesis

- 1. Paucisymptom patient: nasopharyngeal high viral titer (and virus in feces)
- 2. Symptoms then decompensation (~day 10, respiratory decompensation): low viral titer compared to earlier in nasopharyngeal samples
- 3. Progression/death: high viral titers in upper and lower respiratory samples plus persisting viremia.

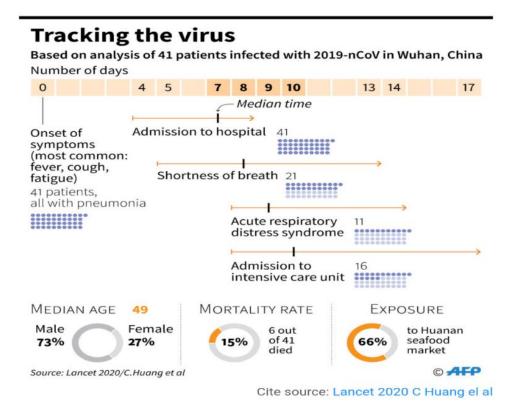
## **Diagnosis Flags:**

Associated with greater illness severity: Lymphopenia (83% hospitalized), neutrophilia, ↑ serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), and lactate dehydrogenase (LDH), ↑ C-reactive protein (CRP), ferritin. Associated with greater mortality: ↑ D-dimer and lymphopenia Chest X-ray (CXR) Bilateral air-space consolidation, May be unremarkable early in the disease Chest CT Bilateral, peripheral ground glass opacities - a non-specific pattern seen in other infections.

## **Clinical Progression**

Acute Coronary Syndrome, myocarditis, and several cases of fulminant myocarditis have presented: cardiac catheterization is typically normal. MRI may not be probably in patients with COVID-19. Per the American College of Cardiology recommends patients taking ACE / ARB medications should be managed based on their clinical condition; there is no evidence to hold as a practice guideline and abrupt withdrawal may be harmful. The SARS-CoV-2

virus causing COVID-19 attaches to ACE2 receptors present in the lungs and heart. Theories vary if ACE-I or ARB administration creates a more susceptible environment, or if they have a protective effect.



The presentation is that this is a single system disease, predominantly an acute hypoxic respiratory failure on the secondary sequelae that we're seeing in the ICU patients is some sort of cardiomyopathy, so ARDS / cardiac failure, which is really important for us to remember because we know how to take care of those patients," Elizabeth Bridges PhD, RN, President Elect AACN.org

#### **Complications**

**Hemotology:** anecdotal reports of substantial rates of DVT and PE in critically ill patients. Some centers using low molecular weight heparin for prevention.

CNS: Encephalitis or encephalopathy

**Secondary infection**: Limited data on incidence because many COVID-19 patients are treated empirically with antibacterials for pneumonia. Appears particularly in critically ill patients and those with prolonged hospitalizations. Anecdotal experiences growing regarding concern for the development of pulmonary aspergillosis.

Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) -United States, February 12-March 16, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(12):343-346

#### **Specific COVID-19 treatments**

Supportive Care remains primary treatment. Antiviral drugs commonly used in clinical practice, including ganciclovir, acyclovir and ribavirin, are not recommend for SARS-CoV-2. Without a current EVP for care, it is recommended to enroll patients with severe illness in a clinical trial rather than use off-label medications.

## Treatment Research (new between 4/7 and 4/13/2020)

- Convalescent plasma: in an uncontrolled case series of 5 critically ill patients with COVID-19 and ARDS, https://pubmed.ncbi.nlm.nih.gov/32219428/ administration of convalescent plasma containing neutralizing antibody was followed by improvement in clinical status. Cheng Y, Wong R, Soo YO, et al. Use of convalescent plasma therapy in SARS patients in Hong Kong. Eur J Clin Microbiol Infect Dis. 2005;24(1):44-6.
  - FDA Released Guidelines for Trials of Convalescent Plasma https://www.fda.gov/media/136798/download
- Chloroquine(CQ) or hydroxychloroquine (HCQ) Gautret et al. suggest decreased SARS-CoV-2 shedding in non-RCT of 36 patients; 6 patients in a post-hoc analysis who received HCQ combined with azithromycin had further viral carriage reduction, however, the journal accepting this paper has withdrawn it from consideration due to unacceptable standards. HCQ may cause prolonged QT, and caution should be used in critically ill COVID-19 patients who may have cardiac dysfunction or if combined with other drugs that cause QT prolongation
- Tocilizumab: an FDA-approved anti-IL6R agent for CAR-T cell cytokine release syndrome
- In a research cohort of patients hospitalized for severe Covid-19 were treated with compassionate-use remdesivir; clinical improvement was observed in 36 of 53 patients (68%). Measurement of efficacy will require ongoing randomized, placebo-controlled trials of remdesivir therapy. (Funded by Gilead Sciences.) https://www.nejm.org/doi/full/10.1056/NEJMoa2007016
- Harrison C. Coronavirus puts drug repurposing on the fast track. Nat Biotechnol. 2020.

## Homeopathic Approaches to COVID-19 [HNA webinar; Andre Saine, ND]

Ensure to exercise the bedridden patient

**Bryonia**: prophylaxis for viral infection; Dr. Saine recommends 200 mg q 5-7 days. If exposed, take evey 4 hours. Indications: Flu-like signs & symptoms, still and quiet disposition.

**Berylliam**: prophylaxis for fibrotic tissue development during disease process. Indications: practitioner auscultates clear lung fields in an individual c/o dyspnea

**Camphora**: symptom management---- Indication: hypothermia or c/o feeling cold but 'kicks off the covers', severe thirst, anxious disposition, restlessness, apathetic or adamant "I'm dying"

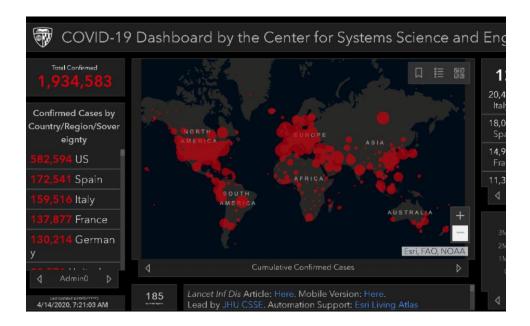
**Phosphorus**: begin with onset of cold symptoms. Indications: Anxiety, Thirsty for cold fluids, Wants someone at their bedside. Contraindicated for those wanting or drinking hot beverages.

**Antimonium**: manages symptoms---Indication: denies thirst or c/o 'flat taste' **Lobelia**: symptoms of 'great prostration'

**Gellsenium**: use late in viral stages. Indication: lack of thirst, dull responses, drowsiness, c/o heaviness

**Cuprum metallicum**: may support immune system during severe viral infection. Indication: Flat affect or exhaustion, minimal responsiveness or stupor

**Boneset**: "... is an admirable remedy to break up a common cold, especially when accompanied by deep-seated, aching pain. If there are pleuritic pain and hoarseness, it is also valuable." In every epidemic of influenza it has been used, it has provided a great advantage." Felter, M.D., Harvey Wickes, The Eclectic Materia Medica. Several studies have confirmed the effectiveness of boneset in treating the common flu, one found the fatality rate in influenza patients dropped to 0.6% from a 3% fatality rate without the treatment. The same research demonstrated Boneset counteracted the cytokine dysregulation caused by severe cases of the disease. [Which is a considerable concern in the pathophysiology of severe COVD-19 infection.] NOTE: the plant produces profuse diaphoresis so the patient must be monitored for temperature dysregulation. A symptom of unstable status in COVID19 patients is hypothermia.



# **Global Situation Report**

Johns Hopkins Tracker Report for APRIL 14, 2020 at 0730 CST: 1,934,583 confirmed global COVID-19 cases and 120,863 deaths (nearly 91,000 in a week)0945 these increased to 1,935,646 and 120,914:

https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html?fbclid=IwAR0MR1BHPWbTbVFSw0IVq2UkHXQNI4rT-Wb7uSH3ikG0YjJfohQfUxW3Izo#/bda7594740fd40299423467b48e9ecf6

- Wuhan's 11 week lockdown expired and global deaths top 80,000 (CIDRAP). Illness levels stabilized in some countries such as Pakistan, and Iran, but rose in others, such as Italy, Turkey, Spain, India, Netherlands, Belgium, and Japan. Russia who continues a 16% daily increase in cases, WHO (4/9)
- A 2 week cease fire was announced in Yemen. "Tens of thousands"
   Yemenis will be sent home from Saudi Arabia. Though no COVID-19
   cases exist in Yemen, Saudi Arabia has over 3,000. (Washington Post)
- China has imposed restrictions on the publication of academic research on the origins of CoV-Sars2, according to a central government directive (CNN)

## **United States of America**



4/14/2020: As of 0100 CDT confirmed cases in the USA had risen to 588, 435 (nearly 425k increase since the first of the month), and 23,702 deaths; www.1point3acres.com online tracker utilizing data tables from the Center for Health Security, WHO, international Centers for Disease Control, and public health agencies abroad. The resource provides graphs which include testing variables, and population demographics essential to obtaining the most accurate representation of public health.

For the first time in United States history, all 50 States and territories; US Virgin Islands, the Northern Mariana Islands, the District of Columbia, Guam and Puerto Rico have all received a federal disaster declaration. Washington, DC, Baltimore, and Philadelphia are increasing at rates to become the newest 'hotspots'. The data tracker, <a href="www.1point3acres.com">www.1point3acres.com</a>, maps individual states using COVID-19 data comparison of population testing and confirmed cases. This data will be increasingly reflective of the effects of social distancing. States testing extensively per population data, and noting a drop in positive cases: MN, WA, NC, TN, NH

- Guam has reported wide-spread community transmission.
   Apprehension exists over health facilities ability to support a large number of critical patients. The few CCU beds are frequently at capacity even prior to the pandemic.
- A sailor from the Theodore Roosevelt aircraft carrier has died from COVID-19, he was diagnosed March 30th. The ship is the site of the largest outbreak in the military.

 Sudip Parikh, CEO of the American Association for the Advancement of Science (AAAS), calls on the US Centers for Disease Control (CDC) to engage with the public and again offer factual and informative science. <a href="https://www.statnews.com/2020/04/08/cdc-remember-who-you-are/">https://www.statnews.com/2020/04/08/cdc-remember-who-you-are/</a>

# **Epidemiological Research**

A genetic analysis of viral samples from NYU Langone, indicated the New York outbreak originated in Europe, and transmitted to NYC in February before testing started. "As viruses evolve during transmission from person to person, their sequences can help researchers to zero in on the provenance, or place of origin, of that specific infection," Dr. Matija Snuderl, Director Molecular Pathology at NYU Grossman School of Medicine. Results propelled questioning if more extensive national tracking would be beneficial to public health agencies.

• A new study has begun recruiting at the National Institutes of Health in Bethesda, Maryland, to determine how many adults in the United States without a confirmed history of infection with SARS-CoV-2 and have antibodies to the virus. The presence of antibodies in the blood indicates a prior infection. In this "serosurvey," researchers will collect and analyze blood samples from as many as 10,000 volunteers to provide critical data for epidemiological models. The results will help illuminate the extent to which the novel coronavirus has spread undetected in the United States and provide insights into which communities and populations are most affected. Those interested in joining the study can

**email** <u>clinicalstudiesunit@nih.gov</u> <u>https://www.nih.gov/news-events/news-releases/nih-begins-study-quantify-undetected-cases-coronavirus-infection</u>



# **Public Health Response**

TRACING COVID-19 in the UNITED STATES: The US Department of Health and Human Services relaxed enforcement of HIPPA for "public health and health oversight activities" related to COVID-19. The Center for Health Security (CHS) published A National Plan to Enable Comprehensive Finding and Contracting Tracing in the US, http://www.centerforhealthsecurity.org/ourwork/pubs archive/pubs-pdfs/2020/a-national-plan-to-enablecomprehensive-COVID-19-case-finding-and-contact-tracing-in-the-US.pdf, stating "COVID-19 is already spreading across the United States.. a case-based intervention approach (employed routinely) will be impossible to achieve for COVID-19 without a new national initiative that combines a massive expansion of rapid diagnostic tests in every community, with an unprecedented growth in a public health workforce and adoption of new technologies dedicated to case identification and contact tracing in each state." They estimated this would require approximately 100,000 contact tracers, and \$3.6 billion in emergency funding to assist with this large-scale effort.

Our nation is under significant social distancing restrictions and though inconvenient, science necessitates that we continue in order to prohibit community transmission, "avoid overwhelming our hospitals, and ultimately save lives" (CHS 4/2020).

Digital Tracking, is the next recommended

step. <a href="https://www.nbcnews.com/news/world/iceland-employs-detective-work-testing-quarantine-coronavirus-fight-n1170166">https://www.nbcnews.com/news/world/iceland-employs-detective-work-testing-quarantine-coronavirus-fight-n1170166</a> Iceland, Great Britain, and New Zealand each claim 50%-86% of new cases were alerted prior to confirmation via tracking from population cellphone data. Individuals who

were exposed were immediately alerted. This was "a powerful tool in controlling the spread of COVID-19 in China, South Korea and other Asian nations- (but) at a cost to privacy many Americans would never tolerate," Seattle Times. In South Korea, where 5% of the population was tested, cellphone alerts included age and gender of the infected person. In Taiwan, anyone who tested positive was required to download an app to have quarantine compliance monitored by their cell phone. (Wang CJ, Ng CY, Brook RH. Response to COVID-19 in Taiwan: big data analytics, new technology, and proactive testing. JAMA, 3/2020) "The country never had to close businesses or order people to stay home...that detailed tracking of every single case is the reason people in Taiwan feel safe to go to bars or restaurants" said Chunhuei Chi, director of the Center for Global Health at Oregon State University.

- A new application, NextTrace, allows anonymous registration for those who test positive. Alerts would go out automatically to others who subscribe to the network who might have come close enough for exposure. Several similar programs have been launched across the country, and on Friday, tech heavyweights Apple and Google said they are introducing new tools for contact tracing based on Bluetooth technology and phone apps. In the US however, wow well the programs work will depend on people being willing to enroll. <a href="https://www.federalregister.gov/documents/2020/04/07/2020-07268/enforcement-discretion-under-hipaa-to-allow-uses-and-disclosures-of-protected-health-information-by">https://www.federalregister.gov/documents/2020/04/07/2020-07268/enforcement-discretion-under-hipaa-to-allow-uses-and-disclosures-of-protected-health-information-by</a> and Studdert DM, Hall MA. Disease Control, Civil Liberties, and Mass Testing Calibrating Restrictions during the Covid-19 Pandemic. N Engl J Med. 2020.
- Federal funding for public health preparedness has been reduced by 28% over that time. In addition, public health job losses in the 2008 recession amounted to a reduction of 50,000 positions across public health organizations nationally. <a href="https://www.statnews.com/2020/04/05/deficit-publichealth-workers-no-way-to-fight-covid-19/">https://www.statnews.com/2020/04/05/deficit-publichealth-workers-no-way-to-fight-covid-19/</a>. "Before the COVID-19 pandemic, health departments had limited staff, resources and time to support the diverse public health needs of our communities. This system will be further strained as the epidemic grows. We must immediately create a national public health reserve to shore up public health systems" The Hill.

For COVID-19, we need a rapid scale-up of the public health workforce dedicated to case identification and contact tracing. The Johns Hopkins report details procurement of staffing, funding, and technological resources for

action. <a href="http://www.centerforhealthsecurity.org/">http://www.centerforhealthsecurity.org/</a> resources/COVID-19/200408-contact-tracing-factsheet.pdf

# **Shortages and Solutions**

#### **Ventilators**

(HHS) The Department of Health and Human Services announced the second contract for ventilator production rated under the Defense Production Act (DPA), to Philips. Philips's contract, at a total contract price of \$646.7 million, is for a production schedule allowing for the delivery of 2,500 ventilators to the Strategic National Stockpile by the end of May 2020 and a total of 43,000 ventilators to be delivered by the end of December 2020.

## Personal Protective Equipment (PPE)

COVID-19 hotspots continue to appear across the United States, and with them, the need for PPE expands just as rapidly. In the March survey by the HHS, hospital facilities stated that they turned to non-traditional sources of medical equipment and supplies such as online retailers, home supply stores, paint stores, auto-body supply shops, and beauty salons. Other necessary items are short as well, food, toilet paper and an insufficient inventory of essential cleaning supplies, such as disinfectant wipes, hand sanitizer, and hand soap. One hospital described making disinfectants, such as bleach, out of on-hand chemicals, such as chlorine. <a href="https://www.npr.org/sections/health-shots/2020/04/06/827766022/hospitals-are-sourcing-masks-from-autobody-shops-hhs-inspector-general-finds">https://www.npr.org/sections/health-shots/2020/04/06/827766022/hospitals-are-sourcing-masks-from-autobody-shops-hhs-inspector-general-finds</a>

April 8th Eric Toner, MD of the Center for Health Security, provided "an initial estimate of the incremental need for medical PPE of various kinds above normal baseline utilization for a single 100-day COVID-19 wave," Interim Estimate of the US PPE Needs for Covid19. "There have been several published and unpublished models of the pandemic in the United States. Because the least reliable data relate to the number of cases (due to lack of testing and asymptomatic cases), we based our calculations on estimates of the number of deaths. We chose a middle-of-the road estimate of deaths in the United States (350,000), then worked backward to calculate the number... producing an attack rate of 9.4%, case fatality ratio of 1.1%, consistent with published data," E.Toner, MD.

The chart below assumes the following 'middle of the road' rationing practices continue:

#### **Our Estimates**

Based on our assumptions and calculations, we expect the need for following additional PPE supplies al needed in normal times. This includes healthcare PPE used for hospital inpatients (intensive care and not departments, emergency medical services, outpatient visits, and nursing homes. Per capita numbers are All total figures are rounded to the nearest million.

Incremental need for a single 100-day COVID-19 wave, assuming strict social distancing (rounded to nearest million)	US total	Per capita (US pop)
Gloves (combined sterile and exam gloves of all types and sizes)	7.838 billion	23.75
Isolation gowns	668 million	2.02
Medical-grade masks (combined surgical, procedure, and isolation masks of all types)	360 million	1.09
N95 or similar disposable respirators	136 million	0.41

These calculations apply only to a single disease wave and assume strict adherence to all social distancing efforts in effect on April 8, 2020. If subsequent waves of illness recur, additional supplies of PPE will be calculations assume implementation of crisis standards of care regarding PPE conservation, such that th from normal infection control practice.

1. Gloves changed between patients. 2. Simple masks used except during "aerosolized procedures". The spreadsheet does not contain data for foot covers, bonnets, or goggles and face shields. 3. Cohorting of Covid-19 patients when space available

The intent is to provide an order of magnitude target for suppliers and policymakers: Full

Text <a href="http://www.centerforhealthsecurity.org/resources/COVID-19/PPE/PPE-estimate.pdf">http://www.centerforhealthsecurity.org/resources/COVID-19/PPE/PPE-estimate.pdf</a>

#### **Laboratory Testing**

Health worker shortages due to illness put further pressure on already strained systems. While international development of accurate rapid PCR tests continue, an antibody test would be beneficial on multiple fronts. To start, should the treatment of convalescent plasma become as widely accepted as anticipated, antibody titers would allow physicians to identify, or predict when, a candidate would be suitable to donate.

Equally as significant, is the capacity to determine if a healthcare worker had COVID-19 and became immune, alleviating fear of return work without apprehension of infection. "That's something you can easily do with an antibody detection test and not with PCR-you can keep the health system stable." Dr. Konstanze Stiba, Euroimmun. Antibody tests are difficult to develop. The extraordinary degree of knowledge of the proteins that form the

viral coat, specifically, those to which the immune system responds and triggers the production of antibodies that flag or neutralize the virus, must be precise. "Those sections of the viral protein coat must then be produced in the laboratory, using cell lines, for inclusion in an immunoassay (eg, ELISA) that detects whether antibodies are present," Berend-Jan Bosch, a coronavirus specialist at Utrecht University in the Netherlands, "but the spike protein is the main antigen that elicits neutralizing antibodies, as this protein is the sole protein on the viral surface that is responsible for entry into the host cell."

Researching the spike protein will also provide insight to COVID-19 treatment, and Bosch and his team have now created a human monoclonal antibody that neutralizes SARS-CoV-2 in vitro. In parallel, he is working with Marion Koopmans of Erasmus Medical Centre (Netherlands) to develop antibody tests. Petherick A. Developing antibody tests for SARS-CoV-2. Lancet. 2020;395(10230):1101-1102. doi:10.1016/S0140-6736(20)30788-1

It is not uncommon for hospitals to wait more than 7 days for COVID-19 test results. The scarcity of CLIA designated laboratories limits 1- the quantity of testing occurring on any given day 2- a quick turnover between time of collection and when a laboratory receives the test. Without adequate testing facilities or timely results, presumptive positive patients are utilizing valuable resources; bedspace, PPE, and staffing. Long Term Care and Skilled Nursing Facilities are rightly hesitant to accept patients without a negative confirmation, creating a placement delay and further burdening hospital capacity.

Solution: in an article awaiting peer review, Jennerfer Doudna from Innovative Genomics Institute SARS-CoV-2 Testing Consortium, in partnership with UC Berkeley Health, submitted a detailed approach to setting up emergency COVID-19 labs for expedited testing. "Blueprint for a Pop-up SARS-CoV-2 Testing

Lab" <a href="https://www.medrxiv.org/content/10.1101/2020.04.11.20061424v1">https://www.medrxiv.org/content/10.1101/2020.04.11.20061424v1</a> provides the framework for a fully working CLIA designated laboratory in a previous non-designated setting. The guide outlines personnel requirements; according to the State of California where the study was conducted:

- "developed and documented a training strategy for our UC Berkeley scientist volunteers under the guidance of the Tang Center's CLS staff
- submitted evidence to CDPH LFS of prior training (education) in a relevant field via CVs, transcripts, diplomas, or letters from PhD thesis advisors attesting that the relevant individuals possessed an advanced degree.

 While the specific educational requirements have been relaxed during this emergency public health crisis, CLIA regulations still require that all testing personnel be rigorously trained and evaluated, both initially and periodically, to ensure quality performance"

The possibility that this could be duplicated through-out the United States would relieve the burden on existing laboratories, and subsequently, patient census'.

# **Healthcare Worker Staffing**

#### **Cross-Training**

In the current environment of Coronary Units become Corona Units and Labor and Delivery Nurses training on ventilators, Nurses floating out of their specialty is no longer be accepted as an argument based upon safety. Nurse are reporting feelings of inadequacy and concerns for threats to personal licensure. Unit managers, Administrators, and those overseeing hospital staffing changes can 'repurpose' staff in methods they are best suited to. This self-assessment survey takes approximately 15-20 minutes to complete, can assist with assignment/placement decisions.

The survey was pilot tested by a large health care system, who felt it
was quite comprehensive and assisted in their decisionmaking. https://www.amsnstaffingtoolkit.org/

#### **Support Guidance**

Current efforts to fight the Covid-19 pandemic aim to slow viral spread and increase testing, protect health care workers from infection, and obtain ventilators and other equipment to prepare for a surge of critically ill patients."Governors can propose additional flexibility in their Medicaid programs by requesting waivers. Some private insurers have unilaterally expanded their coverage, and these efforts should be encouraged. Efforts need to focus not only on increasing workforce capacity, but also on sustaining it over the course of the pandemic. CMS issued guidance allowing hospitals to provide benefits to support staff, such as multiple daily meals, laundry service for personal clothing, or child care services." -New England Journal of Medicine

- 3rd and 4th year Medical students no longer in clinical rotations can help expand the workforce by performing various medical tasks such as triage, assessments, data analysis and administrative tasks.
- State licensure organizations can issue emergency or temporary licenses to fourth-year medical students, and to nurse practitioner, physician assistant, registered nurse, and other health profession students who are near the end of their programs.
- Regulatory agencies and boards should examine regulations to determine whether health professionals' scope of practice is being unnecessarily restricted. Nurse practitioners can practice safely without formal physician oversight, and there may be unnecessary restrictions on registered nurses and licensed practical nurses.
- From: <a href="https://www.nejm.org/doi/full/10.1056/NEJMp2006376?af=R&r">https://www.nejm.org/doi/full/10.1056/NEJMp2006376?af=R&r</a> ss=currentIssue

# Crisis Standards of Care: an explanation for healthcare workers

The concept designed by the National Academy of Medicine, Crisis Standard of Care, is the "optimal level of care that can be delivered during a catastrophic event, requiring substantial change in usual health care operations," J. L. Hick et al., "Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2," a Discussion Paper, National Academy of Medicine, March 5, 2020.

- These Standards provide a mechanism for reallocating staff, facilities, and supplies to meet population needs and to free up scarce medical resources
- Health agencies and organizations should not wait until the virus has begun to affect their area; these need to be established pre-emptively.
- Resource distribution: healthcare workers must be the first protected in order to protect the 'system' caring for others. Second, decisions must prevent further transmission: Protecting public health may mean prioritizing resources for people in confined settings; homeless shelters, prisons, and nursing homes.
- Vulnerable populations at high risk for severe infection, or death, are another priority

- Critical Service workers such as fire protection, public safety, pharmacy, and sanitation
- Marginalized populations need to receive supplies, food, and medical care

"Where compliance with physical distancing is directly at odds with meeting basic needs, societal harms are inevitable and must be mitigated." Institute of Medicine, Committee on Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations, Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response (Washington, DC: National Academies Press, 2012).

Governments must provide wraparound medical care for the under- and uninsured and meet essential needs like medication, food, and water. If schools are closed, leaving low-income children without school breakfasts and lunch, authorities should arrange for children and families to receive food at home. These are happening on a local level, but not everywhere, and often the government has had little to do with the efforts. We are seeing humanity step up and care for one another, but where is the management we have paid to support this country through a pandemic?

## **Vulnerable Populations**

#### **HUMAN RIGHTS:**

Physical distancing may be very difficult in some places, such as in prisons, detention centers, homeless shelters, and nursing homes. We must protect against disease outbreaks at these sites, including ensuring good medical care, sanitary facilities, and good hygiene; such as ample supplies of soap and hand sanitizer. Governments seeking to limit the spread of COVID-19 may isolate sick individuals, quarantine exposed individuals, and institute cordon sanitaire may do so under the specific ethical principles dictated as a risk to Public Health. This requires a delicate balance with civil liberties and in the case of certain populations, additional measures of human rights. Individuals subject to isolation, guarantine, or cordon sanitaire orders must be assured a safe, hygienic environment, medical and nursing care, necessities like food, water, and clothing, and communications. G. Ippolito, et al. "Toning down the 2019nCoV media hype-and restoring hope," The Lancet Respiratory Medicine (2020). Vulnerable populations must be protected; authorities should identify in advance those who may need extra assistance (such as older people and people with disabilities) and develop plans to meet their needs. Above all, containment measures must not be a maneuver for

discrimination. According to these standards, the government would need to enable people who are homeless and currently unsheltered to have safe shelter, whether procuring hotel rooms or developing emergency shelters designed to enable physical distancing. L. O. Gostin, "Public Health Strategies for Pandemic Influenza: Ethics and the Law," JAMA 295 (2006): 1700-1704

#### **Persons with Disabilities**

Rossana Reis, right, and her partner Felix Gonzalez, both deaf and blind, communicate by touch, which makes social distancing a problem during the coronavirus pandemic. -Washington Post photo by Bill O'Leary

'DeafBlind' community members fear hospitalization and not having their interpretive link to an ableist world.



March 2nd, Haben Girma, author of, "Haben: The Deafblind Woman Who Conquered Harvard Law" spoke Stanford University on March 2. She has been socially isolating since then but for her demographic, the DeafBlind community, the COVID-19 pandemic is debilitating. "All my life I struggled with isolation, my memoir captures the many ways I've tried to forge connections in a mostly inaccessible world. "I'm worried hospitals will not provide communication access for DeafBlind people...many rely on tactile

interpretation. This is impossible even at six feet away. "I'm worried hospitals facing scarce resources will decide not to save our lives. There is an ableist assumption that causes some people to think it's better to be dead than disabled."

As the DeafBlind community is unable to utilize remote services, hospitals whom are currently restricting interpreters to non-treatment areas will need to re-evaluate policies in order to meet ADA requirements.

#### **Asian Americans**



Persons of Asian decent living in the United States of America are at risk for COVID-19 due to increased risk factors similar to other minority races; they may be impoverished, live in close quarters with multigenerational housing, or may be undocumented. A large percentage of the Healthcare workforce; 17 % of doctors, 9% of physician's assistants and

nearly 10% of nurses in the United States, are of Asian descent. Though they are often on the front lines of care, they have an additional health-risk beyond COVID-19. Recent escalation of Xenophobia has led to record levels of assault and hate-crimes, ranging from verbal harassment to denial of services to violent physical attacks. Russell Jeung, a professor of Asian American Studies at San Francisco State University, started tracking events in mid-March, on a website he designed, Stop AAPI Hate. As of 4/5/2020, Al Jazeerra reported the site has received over 1,100 reports. Statistics show that the Asian population in the U.S. grew by 72% between 2000 and 2015, making it the fastest-growing ethnic group in the country, according to the Pew Research Center, making this concern of large scale proportion. An FBI intelligence report compiled by the Houston office was distributed to local law enforcement agencies across the country: "The FBI assesses hate crime incidents against Asian Americans likely will surge across the United States, endangering Asian American communities." This is not unique to the USA. Beginning in Europe, individuals of Asian descent initiated the global hashtag #JeNeSuisPasUnVirus -- French for "I am not a virus."

https://www.forbes.com/sites/evangerstmann/2020/04/04/irony-hate-crimes-surge-against-asian-americans-while-they-are-on-the-front-lines-fighting-covid-19/#40d0885b3b70\_



#### **Inmates**

Dr. Ross MacDonald, Chief Medical
Officer/Senior Assistant Vice President for NYC
Health & Hospitals/Correctional Health Services

tweeted on March 30th his apprehension of COVID-19:

"I can assure you we were following the CDC guidelines before they were issued... NYC has the best jail health workforce in the nation, we have spent years recruiting and retaining the most talented, mission driven health professionals in the field. We will give our all every brutal day of this crisis. Here's the important part: Infections are growing quickly despite these efforts. Today there are about 200 confirmed cases...just 12 days ago we had our first. In that time we have moved mountains to protect our patients. This is not a general health crisis. Rather it is a crisis of magnitude no generation living today has ever seen. It is possible that our efforts will stem this growth but as a physician I must tell you it's unlikely. I cannot reassure you of something you only wish to be true."

Dr. Ross goes on to impart that 20% of the infected population is at risk of needing hospitalization, and 5% will likely need ventilators to recover. Large-scale and immediate use of compassionate release programs can protect nonviolent prisoners:

- Those who are jailed simply because they cannot pay bail
- Those at low risk of reoffending
- Elderly or vulnerable
- Those with underlying medical conditions
- https://www.huffpost.com/entry/coronavirus-elderly-prisonerscompassionate-release n 5e6fc975c5b63c3b648298d0

"They're all ticking time bombs," said James Manfre, a former sheriff in Flagler County, Florida, and a member of the Law Enforcement Action Partnership, a nonprofit that advocates for the reduction of jail and prison populations. "County jails will suffer the most because they're the ones that cycle people in and out the quickest."

Releasing people with electronic monitoring- allowing for freedom of movement, would be a reasonable accommodation for certain populations along with reducing arrests for petty crime and implementing delayed sentencing. Kaitlin Jackson Roll, CDP and Supervising Attorney for The Bronx Defenders imparts, "these people have families... They are human beings and

are to be presumed innocent until proven guilty." She offers this solution, "in terms of supports one very smart release plan currently in use is putting people in hotels for 14 days in post-release quarantine. After quarantine they can be released to their family." If family is not available this is where the government could step in, procuring hotel rooms or developing emergency shelters which enable physical distancing.

In the most recent demonstration of inmate protection, Washington state Supreme Court ordered Gov. Jay Inslee and Department of Corrections (DOC) Secretary Steve Sinclair to quickly take "all necessary steps" to ensure inmates in the states' prisons have minimal risk of exposure to COVID19. An emergency plan for implementation must be presented by

Monday.http://www.courts.wa.gov/content/publicUpload/Supreme%20Court %20Orders/983178%20Public%20Order%20Motion%20041020.pdf and https://humaneoutbreakresponse.org

Racial and Socioeconomic Disparities Minority populations are disproportionately being affected by COVID-19. 33% of 580 individuals hospitalized with COVID-19 were black and 8% were Hispanic, in a recent publication from the CDC. Maryland has published COVID-19 case counts and data by zipcode, and areas with high prevalence of minorities were found to be particularly affected. Consequently these areas are historically lower income, and have less access to health care. Contributing factors regarding genomics:

- Predisposition toward higher risk for cardiac illness in persons of African descent
- Predisposition toward higher risk of diabetes in persons of Hispanic descent

#### Factors related to income:

- Lower income populations have higher rates of smoking, and or alcohol / drug use, which contribute to co-morbidities and long term health detriment.
- Factors such as multigenerational living are not uncommon in cultural context.
- Cultural and religious gatherings are rarely postponed or cancelled in certain communities, and, may even increase in times of high stress due to enhanced community support.

"Equity and public health go hand and hand. At a time of vast inequities, we are all only as safe as the most vulnerable among us-both in the United States and globally."Committee on Community-Based Solutions to Promote Health Equity in the United States; Communities in Action: Pathways to Health Equity, Jan. 2017

## Advocacy

U.S. Department of Health and Human Services' Office of Inspector General. Ann Maxwell, completed a survey of hospital response to the pandemic <a href="https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf">https://oig.hhs.gov/oei/reports/oei-06-20-00300.pdf</a> In which administrators were asked to name their most difficult challenges, strategies used to mitigate, and how the government could better support them.

The top priority from administrators was government identification of a single, evidence-based source for guidance, reliable predictive models, and data to help them plan and prepare

- Hospitals reported that their most significant challenges centered on testing and caring for patients with known or suspected COVID-19 and keeping staff safe.
- Substantial challenges identified were maintaining or expanding their facilities' capacity.

Every survey identified specific concerns for supplies and durable equipment, logistics, financial concerns, frustration with test availability and results, frequent changes in recommendations or no guidance for care, PPE availability, difficulty maintaining staff, and staff safety: in just two health care systems, 2,200 employees tested positive for COVID-19.

Nisha Mehta, a radiologist with the U.S. Department of Veterans
 Affairs, launched an online petition on Change.org aimed at lawmakers
 - pushing for stronger protections for the health care workforce.
 "Covid-19 Pandemic Physician Protection Act", calls for adequate
 personal protective equipment, tax credits for the health care
 workforce, and mental health coverage for physicians. More than
 110,000 people have signed the petition.

"If the very people who have to pull us through the crisis are burnt, demoralized, and angry - where do we go for help, as a society?" said a Boston psychiatrist, speaking on the condition of anonymity. "We have to protect our protectors." <a href="https://www.statnews.com/2020/04/09/doctors-fume-at-government-response-to-coronavirus-pandemic/">https://www.statnews.com/2020/04/09/doctors-fume-at-government-response-to-coronavirus-pandemic/</a>

Hundreds of healthcare workers have died from COVID-19. Medscape has created a Memoriam list for those who have given all for their profession: https://www.medscape.com/viewarticle/927976

#### Resources

#### **CLINICAL CARE:**

Right Ventricular Failure / CE Article from AACN:

https://aacnjournals.org/aacnacconline/article/31/1/49/30867/Right-Ventricular-Failure?sc camp=22A047014B4445B2BF0BFAFD5BAF24E7

Heart Failure Guidelines: New Treatment Options
Refresh your knowledge of current management of HF. Webinar presenter
Cheryl A. Westlake, who contributed to development of 2017's "Guideline for
the Management of Heart Failure" update, focuses on patients with HF with
reduced ejection fraction.

Extracorporeal Life Support: RN Management of ECMO Patients Some patients with severe COVID-19 require ECMO, and cardiac dysfunction influences the decision for venovenous (V-V) or venoarterial (V-A) ECMO. In AACN's webinar, "Extracorporeal Life Support: RN Management of ECMO Patients"

Emergency Nurses Association- COVID Free webinar https://www.youtube.com/channel/UCV6LMIjCWUM7aVgJ5aV6uPA

COVID 19 Response Webinar Series- American Association of Colleges of Nursing:https://www.aacnnursing.org/Professional-Development/Online-Learning/Webinars/COVID19-Webinar-Series

Pulmonary Care Webinars- Free from American Association of Critical Care Nurses https://www.aacn.org/education/online-courses/covid-19-pulmonary-ards-and-ventilator-

resources?sc\_camp=D89A9158E9C34910A638BAF9931DE4F0&\_zs=1uTXX&\_zl =ewR22

#### **STRESS-MANAGEMENT:**

American Holistic Nurses

Association https://www.ahna.org/Home/Resources/Stress-Management

\*Coming Soon\* RESILIENCE: Sharing Self-Care - weekly 1 page printable resources

Moral Distress: A Catalyst in Building Moral Resilience 2.5 CE

https://journals.lww.com/ajnonline/FullText/2016/07000/CE\_\_Moral\_Distress \_\_A\_Catalyst\_in\_Building\_Moral.25.aspx

American Psychiatric Nurses Association- Tips for Managing Stress and Self-Carehttps://www.apna.org/i4a/pages/index.cfm?pageid=6685

https://instituteofcoaching.org/masterclasses/resilience?inf\_contact\_key=07d 09b583c32fdc6787acbecd759dc40680f8914173f9191b1c0223e68310bb1

Staying Calm and Well in the Midst of the Covid19 Storm-

Evidence-based Tactics that Work! https://u.osu.edu/keepcalmcovid19/schedule/

Self-Care and Stress Resilience for Home Health care Providers- https://www.facebook.com/groups/149681983051525/

National Academy of Medicine Strategies for Leaders and Managers- https://nam.edu/initiatives/clinician-resilience-and-well-being/clinician-well-being-strategies-during-covid-19/

#### **ADVOCACY:**

Tell your member of Congress to do everything possible to increase PPE prioritization and distribution to nurses and other frontline providers! https://p2a.co/7Xuw9of

AACN Issues Position Statement on Moral Distress in Times of Crisis- https://www.aacn.org/nursing-excellence/healthy-work-environments//~/media/aacn-website/policy-and-advocacy/stat-20\_position-statement\_moral-distress.pdf

#### **RETURN TO WORK:**

response to COVID19.

#### **Retired / Inactive License Nurses**

Return to the bedside for the COVID19 pandemic: visit your State
Board of Nursing website, look for "Licensure, Renewals, Inactive"
keywords. Fees are waved in certain states and new legislation is
underway to advise state boundary practice barriers; following
President Trump's signing of National Public Emergency (NPE), state
governors will be able to sign an 1135 waiver that will allow their state to accept medical
practitioners with licenses from other states and to widen the scope of practice for
graduate level nurse specialties. NOTE: Individual State Boards may opt, to / not to,
implement emergency licensures. Trusted Health has compiled a list of each State Boards

License changes allowed on a state to state basis:

- Nurse Apprentice Authorization; students can work up to their knowledge practice level as delegated by senior RN
- New Graduate Temporary License; (GN) Senior nursing students may work as new graduate RNs with direct RN supervision, and, waive licensure by examination within 30 days prior to graduation
- Temporary Permission to Practice: non-compact licensure states are permitting compact licensure nurses to work during COVID19
- Waiver of Licensure by Endorsement: NCSBN Press Release vows to assist in licensure verification across state lines
- · Nursing Faculty 'return to bedside' expedited processing
- Reinstatement of Emeritus Licensing (Retired Nurses)

#### PRACTICE:

CMS guidelines for Medicare/Medicaid.

 CMS Regulatory Changes to Help U.S. Healthcare System Address COVID-19 Patient Surge - provisions include authorizing hospitals to use PAs and NPs to the fullest extent possible.

OpenWHO.org, a new interactive, web-based, knowledge-transfer platform offering online courses to improve the response to health emergencies from WHO.

Not an AHNA member? Learn more.







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