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Pandemic Fever

Current, Former Medical Personnel Take on COVID-19

By Maj. Gen. George Alexander, M.D., Army National Guard retired

The 1918 influenza pandemic was one of the world's most severe diseases in modern history. About 500 million people became infected with the virus, and some 20 million to 50 million people died worldwide.

In the U.S., the infection was first identified in soldiers at Camp Funston, now Fort Riley, Kansas, in the spring of 1918. There were about 675,000 deaths in the U.S. in 1918 from the flu, with high mortality among previously healthy people, including those ages 20-40. There was no vaccine to provide protection.

In December 2019, the world saw the beginning of another pandemic, this one shortly identified as being from severe acute respiratory coronavirus 2. COVID-19, the illness caused by this virus, overwhelmed health care systems globally. In Wuhan, China, where the disease was first reported, COVID-19 was found in a seafood and poultry market. This virus spread rapidly to almost every continent, infecting millions and becoming fatal to several hundred thousand people.

Around the world, incidence and mortality rates from COVID-19 increased on a daily basis. In the U.S., the disease was first observed in Washington state near Seattle. It mushroomed nationwide and spread to many of our country's largest cities. The Institute of Health Metrics and Evaluation, an independent global health research center at the University of Washington, projected nearly 135,000 U.S. deaths due to COVID-19 by August.

Sgt. Aaron Jaapar, of the Nebraska Army National Guard's 267th Maintenance Company, carries canned corn to be distributed to those in need by the Food Bank of Lincoln.

NEBRASKA NATIONAL GUARD/SGT. LISA CRAWFORD

One important threat our nation faces is rapid spreading of COVID-19 and increasing deaths as more people succumb to the infection. Diagnosing patients with COVID-19 is important. A missed diagnosis in an individual can put family, friends, indeed, entire communities at risk of developing the disease.

Military's Role

An important question is what role the U.S. military will play in the COVID-19 response. The National Guard was deployed initially because it comes under the command of state governors. In peacetime, governors have discretion about the use of their state's National Guard. Governors from all 50 states, the District of Columbia, Puerto Rico, Guam and the U.S. Virgin Islands have activated components of their Army and Air National Guard. As of this writing, about 45,000 Army and Air National Guard personnel were deployed in support of these responses to the pandemic.

Two types of military support would be most useful in the COVID-19 pandemic: medical units and base facilities for quarantine. Using military medical personnel will prove vital if the number of infections surpasses what the civilian health care system can manage. The military has a large medical establishment. The Military Health System (MHS) is one of America's largest and most elaborate health care establishments, and the world's foremost military health care delivery system. It provides care to active-duty service members, members of the reserve component, retired military

personnel and their dependents. With an annual budget of $50 billion, it employs some 137,000 people.

The MHS saves lives on the battlefield, fights infectious diseases around the world and treats some 9.5 million beneficiaries. If the COVID-19 pandemic gets much worse, military medical personnel probably will be occupied taking care of patients at military hospitals. Since most of the wartime medical capability is in the reserve component, particularly in the U.S. Army Reserve, these medical units could be mobilized and sent to select hard-hit COVID-19 areas.

Medical Support

The Navy has two hospital ships, the Comfort, homeported in Norfolk, Virginia, and the Mercy, homeported in San Diego. These ships have large capacities, with 1,000 beds and 12 operating rooms each. They were deployed to New York City and the Port of Los Angeles, respectively, though the Comfort left New York at the end of April after treating 182 patients, about 70% of whom had COVID-19. The infected patients were admitted after the ship's mission changed. The Mercy, which did not take any COVID-19 patients, released its last patient on May 5.

These hospital ships make excellent quarantine facilities by separating the sick from the general population. The Navy also has amphibious ships with large berthing areas and medical facilities that could be pressed into service as quarantine wards.

In New York City, the 531st Army Field Hospital from Fort Campbell, Kentucky, and the 9th Hospital Center from Fort Hood, Texas, cared for 255 patients at the Jacob K. Javits Convention Center field medical site, and 366 military medical personnel, comprising 163 doctors, 190 nurses and 13 respiratory therapists, were dispersed to city hospitals. In Seattle, the field hospital set up by the 627th Hospital Center from Fort Carson, Colorado, and the 47th Combat Support Hospital from Joint Base Lewis-McChord, Washington, was disassembled in mid-April after not being needed and was to be relocated, according to DoD officials.

The U.S. Army Corps of Engineers is constructing 21 alternative care facilities to be used in the event that hospitals become overwhelmed with COVID-19 patients. These facilities are expected to add thousands of beds in states and cities with bed shortages. The Army is seeking retired medical soldiers to support COVID-19 efforts, with more than 27,000 retirees showing interest in returning to active duty.

Military bases were used to quarantine citizens who may have returned home to the U.S. from COVID-19-infected areas overseas or a boat cruise. Military bases are well-suited for such missions because access is easily controlled. Bases have capabilities already in operation, including medical, food and housing. These facilities easily allow for citizen transition into a quarantined status.

Lessons Learned

The COVID-19 pandemic has challenged the U.S. military in many ways. Prior experience from the 1918 influenza pandemic provides little guidance on how to approach COVID-19. Each day, more is learned. There are instructive lessons from this dangerous threat confronting the United States.

The mobilization of the MHS in cooperation with the public health and health care delivery systems in major cities is needed to supplement medical care provided for large numbers of sick patients in emergency departments and intensive care units.

Employing force-health protection at Walter Reed National Military Medical Center, Maryland, by restricting access control points and monitoring and screening patients for COVID-19 has worked well. With the influx of patients to Walter Reed's emergency department because of concerns about COVID-19, it has become imperative to keep the emergency department and hospital free of potentially infectious patients. To remedy this situation, the infectious-disease team set up a COVID-19 screening station to make sure these patients do not come into the emergency department to get screened and/or tested for COVID-19. This is a positive lesson learned.

Walter Reed continues to provide acute, urgent and emergent care services for active-duty personnel and beneficiaries. This treatment option can get active-duty service members back to their units quickly.

It is of interest to note that telehealth and virtual health options are being provided to military beneficiaries to take care of their health care needs, such as refilling prescriptions or for follow-up appointments. This allows recipients to take advantage of telehealth best practices.

Collaboration between the U.S. military and states is vital to ensure COVID-19 policies adequately consider military and civilian health care workers' unique positions in a crisis. Morale is fundamentally important in their situations. In times of crisis, the strongest possible motivation for military medical workers to toil under difficult conditions is knowing they are saving lives. This is a valuable lesson learned.

A sobering lesson has come from the treatment outcome of COVID-19 patients. We are still learning how to combat this disease. Orchestrating this mission requires sound science, broad collaboration and transfer of ongoing research into benefits for patients.

We must fight this infectious disease with all available resources. ★

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