

Dear KCMS Members,

The KCMS Executive Board met Friday, Feb. 28, 2020 to discuss our preparedness for the coronavirus (COVID-19) potential pandemic and more specifically our local response. Thank you to two of our Medical Society members, Drs. Manfred Henne and Paul Tice for sharing the important summaries attached regarding what we know about the viruses diagnosis, communicability, and mortality. We have learned from Scott Lindquist, State Director of Public Health that Washington State now has a limited ability to test for the virus locally (15-16 cases/day). See the attached for an alternative diagnostic test utilizing Chest CT. We have already met with the WSMA and we plan to reach out to Kitsap Public Health and CHI Franciscan to offer our assistance in disseminating important information such as recommended responses to patient inquiries and how to respond to patients who want to come to your clinics or offices with respiratory symptoms.

Sincerely,

Rebecca Carlson, KCMS Executive Director

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No cases of COVID-19 have been reported to public health in Kitsap County. Washington State had one case and they have recovered. Although the risk for people in Kitsap County from COVID-19 remains low (with no local case) at this time, we are intensively working for preparation of a multi-layered public health response. Please see attached Centers for Disease Control and Prevention (CDC) HAN Update and Interim Guidance on Outbreak of Coronavirus Disease 2019 (COVID-19). Kitsap Public Health District is working with Washington State Department of Health (DOH) and we will share information as it becomes available. Please check the CDC and DOH websites for up-to-date information.

If you have questions, please contact the Kitsap Public Health District Communicable Disease department at 360-728-2235. See also:

<https://kitsappublichealth.org/CommunityHealth/cdc.php>

Resources

CDC Information on COVID-19: <https://www.cdc.gov/coronavirus/>

WA DOH Novel Coronavirus Outbreak (COVID-19):

<https://www.doh.wa.gov/Emergencies/Coronavirus>

From Dr. Paul Tice:

I am no public health expert, but I am concerned about the covid-19 virus and wonder if perhaps the medical society, either state or county or both, should do something now to prepare, presumably in coordination with other agencies. It looks like the number of known cases is doubling every few days, and there appears to be no stopping it at this point. Here is what I have gathered from a brief search on Google:

Disease R0=spread mortality incubation time

Covid-19 3.2% 5 days

Influenza 1.3 0.1% 2 days

1918 flu 2.5 20% 5 days

H5N1 bird flu 1.1 60% 4 days

Measles 1.5 15% 10 days

SARS 3 50% 5 days

MERS 0.5 33% 5 days

Ebola 2 90% 10 days

Plague 1.3 40% 4 days

Smallpox 6 30% 17 days

R0 refers to the number of other people who get it per infected person. Many of these figures are likely either wrong or way off, but it still sounds bad. I am guessing that preventing the spread and isolation was the only thing that saved us from SARS, but this one is already spread all over. In general, roughly a quarter of the population get influenza each year, but that percentage will almost certainly be higher with the coronavirus as there is no vaccine yet. So, if half the US population gets coronavirus, and there is a 2% mortality rate, plus a 10% severe illness rate (needing hospitalization), there may be as many as 3 million people in the US who die from it, as opposed to the 50,000 who die from influenza every year, and 10 million people who are sick enough to need to be hospitalized, we are going to be in a bad way very soon, as there are only one million total hospital beds in the US. Should there be a discussion amongst people who know more about this to look into resources in case we have neither the facilities, equipment (PPE), nor personnel needed? I would welcome the opportunity to come out of retirement, but I wouldn't be able to help without a facility to substitute for a hospital, equipment, and support personnel. Even if it turns out that this one is milder than what the initial reports suggest, there is always going to be the next one, and I think we should at least talk about what to do so that we can mobilize quickly if needed. Also, I am now a member of the Rotary Club, and they have vast resources in the way of skills and organization.

Thanks, Paul

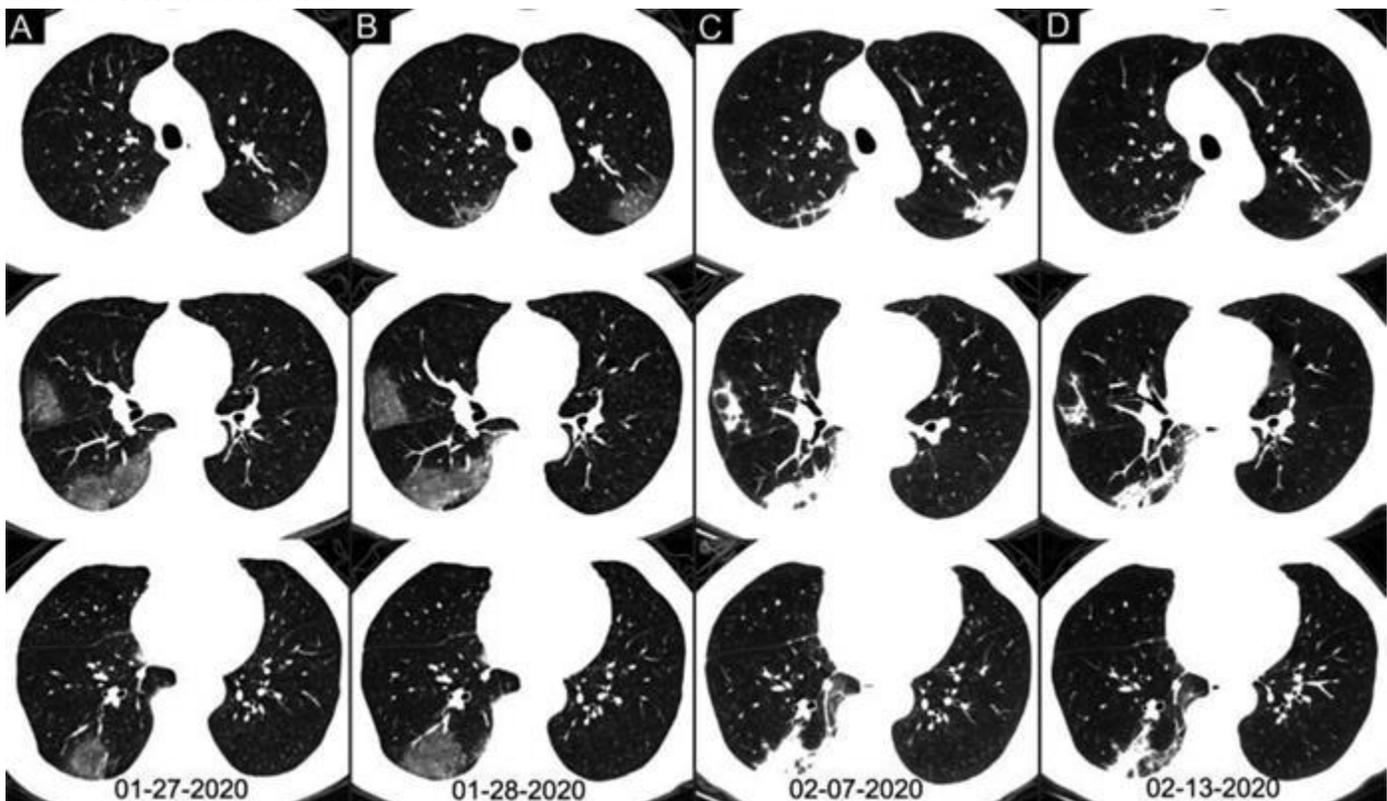
From Dr. Manfred Henne:

February 26, 2020 -- In a study covering more than 1,000 confirmed cases of the novel Coronavirus disease (COVID-19), chest CT proved to be more accurate than the standard method of DNA testing for early diagnosis of the disease in high-risk individuals. The findings were published online February 26 in [Radiology](#).

Nucleic acid testing with reverse transcription polymerase chain reaction (RT-PCR) is considered the standard technique for diagnosing COVID-19. However, the long processing time and shaky outcomes of initial RT-PCR tests have made evident the need for a more efficient alternative for early diagnosis of the disease. A [recent examination](#) of 51 cases demonstrated that CT had better sensitivity at detecting COVID-19 than RT-PCR testing among high-risk individuals upon initial presentation of symptoms, highlighting CT's utility in early diagnosis.

The Chinese National Health Commission also [sanctioned diagnosis through clinical symptoms and chest CT](#) as an official method to confirm COVID-19 in the highly affected province of Hubei. Expanding upon this prior work, researchers from China and the Netherlands examined data from 1,014 patients in Wuhan city, the presumed source of the outbreak, who were suspected of having COVID-19 and underwent a chest CT exam and had RT-PCR testing of throat swab samples between January 6 and February 6.

Two radiologists with access to the patients' epidemiological history and clinical symptoms but blinded to the RT-PCR results classified the chest CT scans as positive or negative for COVID-19 based on the presence of [key abnormal CT features](#). All of the patients were eventually confirmed to have COVID-19 with RT-PCR testing. The average age of the cohort was 51 years, and 56% were female.



Axial chest CT images of a 62-year-old man with COVID-19 showing disease progression over time, from bilateral ground-glass opacities on January 27 (A) to multifocal organizing consolidation on February 13 (D). He had multiple negative results from RT-PCR tests, including those obtained on February 3 and 11. Image courtesy of the RSNA.

Overall, the researchers found that chest CT was better at diagnosing COVID-19 than RT-PCR testing upon initial examination of high-risk individuals. The initial RT-PCR testing period included multiple repeat tests up to three days after presentation.

Initial RT-PCR testing detected COVID-19 in only 59% of the cases. In comparison, 88% of the patients showed chest CT findings indicative of COVID-19. Among those with negative initial RTPCR results, 93% showed CT features consistent with COVID-19 diagnosis prior to eventual confirmation on RT-PCR four or more days after the initial test. Chest CT achieved a sensitivity of 97%, a specificity of 25%, and an accuracy of 68% for diagnosis of COVID-19 upon initial presentation of high-risk individuals, where eventual confirmation on RT-PCR served as the

reference standard. The positive predictive value for chest CT was 65% and the negative predictive value was 83%.

"Our data and analysis suggest that chest CT should be considered for COVID-19 screening, comprehensive evaluation, and follow-up, especially in epidemic areas with high pretest probability for disease," wrote the authors, led by Dr. Tao Ai, PhD, and Dr. Zhenlu Yang, PhD, from Huazhong University of Science and Technology. Relying on a combination of exposure history, clinical symptoms, and CT features rather than RTPCR tests alone would aid in more rapid detection of the disease and may allow for better control of viral spread, they concluded.