SARS-CoV-2 Update 21st February 2020

Date: Friday 21st February 2020
Sources: Varied

Iran
Tehran has confirmed 13 more patients positively diagnosed with Coronavirus, including 7 in Qom, 4 in Tehran and 2 in Rasht (1). Kianush Jahanpur, head of public relations and information center of Iran's Ministry of Health, said in a tweet Friday afternoon February 21, that 18 cases have been confirmed in Iran, including the four who died. 735 patients with symptoms similar to flu have been hospitalized in various cities (2).

Extensive data report from the China CDC (3)
China's report on the outbreak's epidemiologic patterns covers all COVID-19 cases reported through Feb 11 and appears in the China CDC Weekly, a publication that is similar to the US Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report. The team analyzed more than 72,000 patient records, of which 44,672 were lab-confirmed cases, 16,186 suspected cases, 10,567 clinically diagnosed cases, and 889 asymptomatic cases. Of the confirmed cases, 80.9% cases were mild, and the vast majority (86.6%) of confirmed cases were in people ages 30 to 79 years old. About 14% of the illnesses were severe, which included pneumonia and shortness of breath, and about 5% have critical disease, marked by respiratory failure, septic shock, and multi-organ failure. The overall case fatality rate was 2.3%, and of 1,023 deaths included in the study, the majority were in people age 60 and older or those with underlying medical conditions.

WHO situation Report-31, 20th Feb. 2020 (4)
Domestic spread starts to be reported in Korea [104 cases, Japan (85) and Singapore (84)].

SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients (5)
The study concludes that “Our analysis suggests that the viral nucleic acid shedding pattern of patients infected with SARS-CoV-2 resembles that of patients with influenza and appears different from that seen in patients infected with SARS-CoV”; “The viral load that was detected in the asymptomatic patient was similar to that in the symptomatic patients” and “that case detection and isolation may require strategies different from those required for the control of SARS-CoV.”

Sources:
3. http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51
   11th Feb. 2020

EiTaF comments
It seems that what we now experience is a declining number of cases in China, even though changing case definitions makes the precise numbers uncertain. An increasing number of cases with no travel history are reported, primarily from Korea, Japan and Singapore which could indicate that these countries are in the beginning of establishing new foci outside China with sustained transmission. The reports from Iran are most probably the tip of the iceberg, and the infection is probably more widespread than reported. The holy city of Qom is visited by Shia Muslims from all over but especially the Middle East. The study in the NEJM on virus shedding (5) indicates that SARS-CoV-2 behaves more like influenza than the original SARS (2003) virus. If that is so, then travel restrictions and quarantine can slow the spread but not stop it. Thus we must prepare for a situation where new foci will be established in new countries which means that travel restriction and quarantine at borders will not prevent imported cases.

Eskild Petersen & Nicola Petrosillo
Co-chairs
ESCMID Emerging Infections Task Force

In the literature:

Report 5: Phylogenetic analysis of SARS-CoV-2. Erik Volz et al. WHO Collaborating Centre for Infectious Disease Modelling, MRC Centre for Global Infectious Disease Analysis, Abdul Latif Jameel Institute for Disease and Emergency Analytics (J-IDEA) Imperial College London 

Using predicted imports of 2019-nCoV cases to determine locations that may not be identifying all imported cases
De Salazar PM, Rene Niehus, Aimee Taylor, Caroline O Buckee, Marc Lipsitch doi: https://doi.org/10.1101/2020.02.04.20020495. 
https://www.medrxiv.org/content/10.1101/2020.02.04.20020495v2

Authoritarianism, outbreaks, and information politics
https://www.thelancet.com/action/showPdf?pii=S2468-2667%2820%2930030-X

Protecting health-care workers from subclinical coronavirus infection
https://www.thelancet.com/action/showPdf?pii=S2213-2600%2820%2930066-7

Clinical diagnosis of 8274 samples with 2019-novel coronavirus in Wuhan


A familial cluster of infection associated with the 2019 novel coronavirus indicating potential person-to-person transmission during the incubation period

Evidence of SARS-CoV-2 Infection in Returning Travelers from Wuhan, China.
Hoehl S et al. NEJM 2020; February 18, 2020. DOI: 10.1056/NEJMc2001899


Cancer Patients in SARS-CoV-2 Infection: A Nationwide Analysis in China
Wenhua Liang et al. Lancet Oncol 14th Feb 2020. PMID: 32066541 DOI: 10.1016/S1470-2045(20)30096-6

Does SARS-CoV-2 Has a Longer Incubation Period Than SARS and MERS?


Clinical findings in a group of patients infected with the 2019 novel coronavirus (SARS-Cov-2) outside of Wuhan, China: retrospective case series. Xiao-Wei Xu et al. BMJ 2020; 368 doi: https://doi.org/10.1136/bmj.m606 (19th Feb. 2020) Cite this as: BMJ 2020;368:m606

Defining the Epidemiology of Covid-19 — Studies Needed
Lipsitch M. et al. Perspective. NEJM February 19, 2020
DOI: 10.1056/NEJMp2002125.

Scientists question China's decision not to report symptom-free coronavirus cases
Researchers say that excluding these people could conceal the epidemic’s true extent, but others say the practice makes sense.
Nature, NEWS 20 FEBRUARY 2020
https://www.nature.com/articles/d41586-020-00434-5

Allergy 2020 Feb 19[Online ahead of print]
Clinical Characteristics of 140 Patients Infected by SARS-CoV-2 in Wuhan, China. Jin-Jin Zhang et al. DOI: 10.1111/all.14238

BMJ 2020;368, m606 2020 Feb 19
Clinical Findings in a Group of Patients Infected With the 2019 Novel Coronavirus (SARS-Cov-2) Outside of Wuhan, China: Retrospective Case Series. Xiao-Wei Xu et al.
DOI: 10.1136/bmj.m606