SARS-CoV-2 – update 28th February 2020

Date: Friday the 28th February 2020
Sources: Several, see below.

WHO situation report - 38 (27th Feb. 2020) (1)
Italy confirmed 400 cases with 12 deaths. Many European countries reported sporadic cases infected in northern Italy. Iran reported 141 cases with 22 deaths.

ECDC

COVID-19: ECDC updates case definition for EU surveillance (2)
At this stage, it is likely that Europe will see similar developments like in Italy, varying from country to country.
On 25 February 2020, ECDC also updated the case definition for EU surveillance of COVID-19 outlining the criteria for suspected cases who should be tested. These include patients presenting with acute respiratory infection (whether mild or severe) who in the 14 days prior to onset of symptoms have met at least one of the following criteria: close contact with a confirmed or probable case of COVID-19 infection or having stayed in areas with so-called presumed community transmission.

Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19. (3)

Viral load of SARS-CoV-2 in clinical samples (4)
The study “showed positive results on RT-PCR a day before onset, suggesting that infected individuals can be infectious before they become symptomatic.”

Estimation of COVID-2019 burden and potential for international dissemination of infection from Iran (5).
The study concludes: “We estimated that 18,300 (95% confidence interval: 3770 – 53,470) COVID-19 cases would have had to occur in Iran, assuming an outbreak duration of 1.5 months in the country, in order to observe these three internationally exported cases reported at the time of writing”.

Preparation for possible sustained transmission of 2019 novel coronavirus. Lessons from previous epidemics (6).
Directly cited from the paper:
For example, influenza A(H1N1)pdm09, first identified in southern California on April 15, 2009, was highly transmissible. By May 5, 2009, influenza A(H1N1)pdm09 had spread to 41 US states and 21 countries. While influenza A(H1N1)pdm09 was highly transmissible, it was not severe. Initial estimates of the R0 of influenza A(H1N1)pdm09 were 1.7. Although an estimated 201 200 respiratory deaths due to influenza A(H1N1)pdm09 occurred during the first year of the pandemic, the number of deaths per population was 30 times lower than that seen during the 1968 influenza pandemic, 1000 times less than the 1918 pandemic, and even less than typical seasonal influenza epidemics (estimated by the World Health
Organization [WHO] to be 250,000 to 500,000 per year, although estimation methods differ. Influenza A(H1N1)pdm09 was highly transmissible but not severe.

Sources:


EITaF comments
The SARS-CoV-2 virus is spreading in Europe and the Middle East with single imported cases reported from Nigeria and Brazil. The situation in Iran is especially worrying with estimated case numbers far exceeding the official numbers (5).
The other focus emerging over the past week is in northern Italy with single cases from Italy imported into other European countries. There were 650 cases infected and 17 deaths reported in Italy as per yesterday, the 27th February, but schools in northern Italy are opening again.
It is noteworthy that neither the WHO nor the ECDC advises against travel to Italy and do not recommend the closure of borders and suspension of flights.

There is still considerable uncertainty about the mortality rate, but figures from the Chinese CDC indicate 0.9% in persons without any comorbidities.
Fully assessing severity in COVID-19 will require serosurveys to determine the rate of asymptomatic infections. For clinically apparent cases, based on current data the rate of complications is higher than for seasonal influenza viruses. The results of ongoing clinical trials in China will be important to inform treatment.
Therefore, containment if local, sustained transmission becomes established in Europe, which we believe it will, practicing good hand hygiene, social distancing and working from home if possible if suspected of exposure is what we can do.

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In the literature and in the press

**Singapore Emerges as Litmus Test for Coronavirus Containment**


**COVID-19: fighting panic with information**
Editorial. The Lancet 2020;395: 537. 22nd Feb. 2020
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30379-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30379-2)

**Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study.** Lancet Respir Dis. 2020, February 24, 2020. Xiaobo Yang, Yuan Yu, Jiqian Xu, Huaqing Shu, Jia'an Xia, Hong Liu, MD et al. DOI:https://doi.org/10.1016/S2213-2600(20)30079-5.


**Coronavirus: Wuhan to quarantine all cured patients for 14 days after some test positive again.** South China Morning Post, 23rd Feb. 2020.
Decision follows several instances in which recovered patients were found to be still carrying the virus and able to infect others. The authorities in Wuhan on Saturday introduced 14 days’ mandatory quarantine for recovered coronavirus patients, after some discharged patients again tested positive.
From Saturday, all patients who had recovered and been discharged had to be sent to designated places for two weeks of quarantine and medical observation, the city's
coronavirus treatment and control command centre said on Weibo, China’s equivalent of Twitter.


Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study.
https://doi.org/10.1016/S2213-2600(20)30079-5


https://doi.org/10.1016/S2468-1253(20)30048-0.

https://doi.org/10.1038/s41422-020-0282-0.