WHO update
23,518,343 confirmed cases of COVID-19, including 810,492 deaths

ECDC update
COVID-19 situation update – 25th August 2020
2,078,775 reported cases, including 180,852 deaths

West Nile virus outbreak in Spain – latest update in 21st August 2020
6 confirmed human cases reported and 13 probable cases being further investigated, in the province of Seville.

COVID-19 reinfections – Hong Kong6,5, Europe6,7 and USA8

A group from the University of Hong Kong has reported on a 33-year-old male with the first presumed case of COVID-19 reinfection acquired in Europe. The patient was diagnosed with mild COVID-19 in March in Hong Kong and tested positive again in the middle of August after returning from Europe; at this time, he was asymptomatic. According to the available information, the viruses from both infections were sequenced, with 24 nucleotide differences between the first and second viral genomes. This work has not yet been published but, according to the authors, it has been accepted for publication in Clinical Infectious Diseases. Shortly afterwards, cases of reinfection in the Netherlands and Belgium were reported in the general media.6,7 Few clinical or scientific details are available yet.

A further report in the press suggests that a male patient was hospitalised in late May in Nevada, USA with a strain genetically different from SARS-CoV-2 that had been isolated from him during a mild infection only 6 weeks previously.8

EITaF comment:
The pandemic is heating up again in several European countries, after the relaxation of lockdown rules and social distancing measures.1 Nevertheless, the number of deaths maintains a downward trend.

To our knowledge, there have been no previous confirmed reports of reinfection; in the Hong Kong case, the hypothesis of a true reinfection is supported by the different SARS-CoV-2 strains sequenced in each disease episode, suggesting that after the first infection the patient was infected with a new strain. The fact that the patient showed no symptoms in the second infection may suggest that some immunity against SARS-CoV-2 had developed, but not sufficient to prevent re-infection. In the Nevada case, the patient had a mild initial infection but his second bout with a different strain was severe enough to require hospital admission. The Hong Kong case fits with the idea of a functional immunity defended by some experts in the field, admitting the possibility of reinfection but with shorter and milder disease, as occurs with other respiratory virus.9 The second case raises concerns about the effectiveness of such immunity, less than 2 months after first infection.
These findings should not discourage the race for an effective vaccine, considering that vaccines available for other respiratory microorganisms such as influenza may not be able to prevent infection, but do reduce the severity of the disease, especially in high-risk groups. These reports raise concern about possible silent re-infections and their potential ability to drive onward transmission to others, and the implications for implementation of public health measures including targeting of screening policies and future vaccination programmes.

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Sources:
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5. https://www.medpagetoday.com/infectiousdisease/covid19/88234