

COVID 19 Advisory 12

A Miscellany for May

Jane and I listened to a Q & A session from the **Royal Society of Medicine** held on 30th April. Clearly, many questions still cannot be answered by medical trial evidence

- The use of face masks outside Health & Social Care settings
- Are BAME subjects more vulnerable to COVID 19?
- Are children less vulnerable?
- Do steroids or BCG (TB vaccination) help?
- Is Remdesivir a cure?

In the following weeks I have had time to read many column inches of newsprint as well as give attention to some excellent Radio & Television documentaries.

We watched Part 2 of the BBC Documentary “**Hospital Special-Fighting COVID 19**” on 12th May. The Royal Free Hospital in Hampstead is one of the Capital’s four specialist receiving hospitals for infectious diseases. In April it came close to disaster. This was averted by pouring another concrete slab to erect an additional oxygen tank to meet the massive demand for oxygen delivery to the hospital’s COVID 19 patients. We had glimpses of just how intense was the emotional strain on the hospital’s health-care workers – and the Ops Director!

We listened to a programme called **Virus Hunters**. The news from these “Gum-shoe Epidemiologists” was sobering. There have been more than fifty animal viruses making the jump into the human species **in the last 50 years** (Zoonotic diseases). Mention was made of a celebrated Virologist, Lawrence “Larry” Brilliant (good name!) who worked with the WHO in 1973-6. The very last case of Smallpox (Variola virus) was identified in Somalia in 1977. Declared extinct in 1980 by the WHO, Smallpox had afflicted man since Pharaoh Ramses 5th over 3000 years ago (proven), but probably for 10,000 years.

They listed seven Coronaviruses (subfamily Orthocoronavirinae) making the jump in the last 20 years. In the further sub-classification of Genera, two of the four are Alpha and Beta. These descend from the Bat gene pool.

Alpha H CoV-229 E is a Cold, possibly chest infection, caught from bats and Palm Civets.

Alpha H CoV NL 63 (2004, Netherlands) affecting infants.

Beta HK U1 (2005) caught from mice and causing a Cold, maybe a chest infection.

Beta H CoV 43 causing a Cold

Beta Severe Acute Respiratory Syndrome SARS CoV 1 (2002) caught from bats.

Beta Middle Eastern Respiratory Syndrome MERS (2012) caught from camels.

Beta CoV 2 (**COVID 19**) caught from bats and pangolins.

It seems that the deeper into the lung tissue a virus targets then the more lethal its effects.

COVID 19 pneumonia impairs the lung's production of *surfactant* – a substance which reduces the surface tension of its structural bubbles and keeps the alveoli inflated.

Deficiency of surfactant will cause the oxygen saturation in the blood to be falling even while the patient denies shortness of breath.

We learned that Nepal is a high risk interface between humans and animals like ducks and rats. In a study in Kathmandu, more than 100 virus genomes have been sequenced. It seems that researchers warned the authorities in 2019 that there was a danger of a pandemic.

Within days, a man had returned from Wuhan, sickening with COVID 19. His test was positive.

They concluded that the weapons most likely to be effective against CoV 2 (COVID 19) are those of global collaboration through the WHO. This includes contact tracing supported with Apps (described as “Spatial Epidemiology”) There must be contact and education of village elders and local Health workers. The threat is not only from COVID 19. The WHO Africa Office weekly bulletin, at any one time, carries news of 50-70 outbreaks and infection crises.

When effective vaccines are manufactured, who will get them? Will it be our nearest and dearest, or will an equitable and fast distribution system prevail to achieve Global Equity? Migrant workers and global leisure travellers will be back. Is the developed world willing to scale up antibody production to make available the billions of doses needed?

Perhaps the lines of our defence against future Zoonotic pandemics must run through all the low- income countries of the world?

The May 2020 RCoA Bulletin is devoted to anaesthetic training. In an article “On kindness”, a member of Council reported that there was a **growing list of names and places** within the health sector associated with a “**Toxic Culture**” of **bullying and undermining**. He reports that the *most accessed page* on the Royal College of Surgeons (Edinburgh) Website is entitled “Are you a Bully”?

He invites us to consider whether we have choices when receiving or observing this kind of unacceptable behaviour and repeats a quotation from the Austrian Neurologist and Psychiatrist Victor Frankl... “*Between the stimulus and the response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.*”

Dr David R Hughes

President

20th May 2020