

# HCFI Dr KK Aggarwal Research Fund

## Coronavirus Updates

### CDC updates its COVID-19 isolation guidelines

The Centers for Disease Control and Prevention (CDC) recommends wearing a high-quality mask for 10 days upon exposure to coronavirus disease 2019 (COVID-19) and to get tested on day 5 rather than quarantining. In its updated guidance, the CDC advises isolation if sick and suspect COVID-19, even though not lab-confirmed. Upon testing positive, the person should isolate for a minimum period of 5 days and avoid contact with persons at high risk until day 11. If the symptoms worsen after the isolation is complete, CDC says to begin isolation again from day 0. It continues to advocate completing the vaccination schedule... (Source: CDC, Aug. 11, 2022)

### FDA guidelines for COVID-19 home testing

In a safety communication, the Food and Drug Administration (FDA) says that those who test negative with the home COVID-19 antigen test should repeat the test regardless of the presence of symptoms to avoid a false negative result. Repeat the test after 48 hours if symptoms are present; do such two tests. If no symptoms, but COVID-19 is suspected, repeat the test after 48 hours of the first negative test and again 48 hours after the second negative test for three tests... (Source: US FDA, Aug. 11, 2022)

### COVID-19 vaccine safe for pregnant women, says study

It is safe for pregnant women to take the Pfizer and Moderna mRNA vaccine, says a Canadian study published in *The Lancet Infectious Diseases* conducted by the Canadian National Vaccine Safety Network.

The likelihood of experiencing a significant health event requiring consultation with a doctor, miss work, was lower in pregnant women compared to nonpregnant vaccinated women of the same age group within 1 week of receiving the first dose; 4.0% vs. 6.3%, respectively. After the second dose, this rate was 7.3% vs. 11.3%, respectively. Feeling unwell or malaise or myalgia, headache/migraine and respiratory tract infection were the most commonly occurring significant health events... (Source: *The Lancet Infectious Diseases*, Aug. 11, 2022)

### Prolonged recovery in children with MIS-C

A study of patients from 25 children's hospitals has found that 27% of children and adolescents who had COVID-19 in the early phase of the pandemic continued to have some symptoms 2 to 4 months after being hospitalized with COVID-19. And, 30% of children with multisystem inflammatory syndrome in children (MIS-C) also had persistent symptoms. Fatigue/weakness was the most common symptom followed by difficulty in breathing, cough, headache, myalgia, body ache and fever. Children with MIS-C experienced more activity impairment post-illness compared to those with acute COVID-19 (21.3% vs. 14.3%, respectively)... (Source: *Pediatrics*, Aug. 12, 2022)

### UK is the first country to approve the bivalent booster COVID-19 vaccine

The UK has become the first country to approve a bivalent booster vaccine for adults, which is an updated version of Moderna's mRNA COVID-19 vaccine. About half (25 µg) of the Spikevax bivalent Original/Omicron vaccine contains the original 2020 virus strain and the remaining half (25 µg) consists of the Omicron (BA.1) variant... (Source: *Medicines and Healthcare products Regulatory Agency*, Aug. 15, 2022)

### suPAR: A new marker to predict incident VTE risk in COVID-19 patients

A recent study in the *Journal of the American Heart Association* has identified soluble urokinase plasminogen activator receptor (suPAR) as another marker to predict the risk of venous thromboembolism (VTE) in COVID-19 patients who have low D-dimer levels. The levels of suPAR were raised by 50% in patients who developed thromboembolism compared to those who did not. About 41% of patients were identified as low risk for VTE when both D-dimer (<1 mg/L) and suPAR (<11 ng/mL) were combined... (Source: *Medscape*, Aug. 16, 2022)

### New guidelines for administration of convalescent plasma

New guidelines on convalescent plasma from the Association for the Advancement of Blood and Biotherapies (AABB) strongly recommend against transfusion of COVID-19 convalescent plasma for unselected inpatients with moderate or severe disease.

Exceptions are individuals who lack antibodies against the virus or immunocompromised patients. Outpatients at risk of severe disease should be administered the plasma along with the standard treatment. The complete guidelines are published in the *Annals of Internal Medicine*... (Source: *Medscape*, Aug. 16, 2022)

### **No benefits from metformin, ivermectin or fluvoxamine in high risk COVID-19 patients**

The phase III COVID-OUT trial has failed to demonstrate any benefits of metformin, ivermectin or fluvoxamine administered as early outpatient treatment in preventing hypoxia, emergency visit, hospitalization or COVID-related mortality in high-risk patients with overweight and obesity... (Source: *NEJM*, Aug. 18, 2022)

### **New weekly COVID cases are declining, says WHO**

In its latest Weekly epidemiological update on COVID-19, the World Health Organization (WHO) has reported a decrease of 9% in new weekly cases in the week from 15th August to 21st August, 2022 compared to the preceding week. The number of new cases was over 5.3 million. Weekly deaths also declined by 15% with more than 14,000 deaths. The maximum rise in new weekly cases (14,76,374) was seen in Japan, where cases increased by 6% followed by the Republic of Korea with 8,84,373 new cases (+2%), the United States with 6,12,378 new cases (-13%), Germany with 2,40,998 new cases (-19%) and the Russian Federation with 2,35,385 new cases (+39%)... (Source: *WHO Weekly Update*, Aug. 24, 2022)

### **BA.5 Omicron sublineage is the dominant strain globally**

The Omicron variant of concern (VOC) continues to be the dominant severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) strain globally, according to the WHO in the month from 22nd July to 22nd August, 2022. The BA.5 is the dominant Omicron sublineage with a rise in prevalence from 71% to 74%. The BA.5.1 and BA.5.2 are rising in prevalence as is BF.7 (BA.5.2.1.7) descendent lineage. The BA.2 and BA.4 descendent lineages are however showing a decline... (Source: *WHO Weekly Update*, Aug. 24, 2022)

### **Japan may no longer require predeparture COVID test for vaccinated travelers**

Japan may soon ease its traveling restrictions for vaccinated (three doses) individuals. It is considering waiving the requirement of a negative COVID-19 test 72 hours prior to the departure from September 7. However, the restrictions on the number of travelers permitted entry into the country will continue. Japan is

currently in the midst of the seventh wave of COVID-19 mainly due to the BA.4 and BA.5 variants... (Source: *Medscape*, Aug. 24, 2022)

### **Moderna applies for EUA for its updated COVID booster vaccine**

Moderna has applied for EUA for its bivalent COVID-19 booster vaccine for individuals aged 18 years and older. Besides the original virus strain, the updated version also acts against BA.4 and BA.5 Omicron variants. The doses may be available next month, says Moderna... (Source: *Medscape*, Aug. 24, 2022)

### **Masks to be mandatory only on public transport and high-risk places in Singapore**

From 29th August, for the first time, Singapore will no longer require people to wear masks indoors. Now, masks will be mandatory only in high-risk settings like health care facilities and on public transport. Another change in the COVID measures is that unvaccinated travelers will not be required to undergo a 7-day quarantine. More than 90% of the people in the country have been vaccinated... (Source: *Medscape*, Aug. 24, 2022)

### **CDC recommends Novavax COVID vaccine for adolescents**

The CDC has recommended the Novavax COVID-19 vaccine for primary vaccination for adolescents aged 12 to 17 years, following the EUA issued by the FDA widening the options available. The Novavax is a protein subunit vaccine... (Source: *CDC*, Aug. 22, 2022)

### **Pfizer to test the effect of second course of Paxlovid in rebound patients**

Following reports of rebound infection after the first course of Paxlovid, the US FDA has asked Pfizer to examine the effect of a second course of Paxlovid in persons who experience a COVID-19 rebound. The preliminary results of the randomized controlled trial are expected to be available by end of September next year. A study protocol, in tandem with the FDA, may be finalized soon, according to Pfizer... (Source: *Medscape*, Aug. 22, 2022)

### **“More transmissible and more dangerous” COVID variants may appear, says WHO**

In a media briefing earlier this week, the WHO has warned about a rise in COVID-19 cases in the approaching winter season, even though now the deaths are decreasing worldwide. Dr Tedros A Ghebreyesus, WHO Director-General said, “Subvariants of Omicron are more transmissible than their predecessors, and the

risk of even more transmissible and more dangerous variants remains.” He also expressed concern about the low vaccine uptake in high-risk people, including the unvaccinated health care workers and elderly population. Cautioned must still be exercised... (Source: WHO, Aug. 31, 2022)

#### Updated bivalent COVID-19 booster vaccines

Following FDA authorization of the Moderna and Pfizer bivalent COVID-19 booster vaccine as single booster dose, the CDC Advisory Committee on Immunization Practices’ (ACIP) has also recommended the Pfizer updated booster for individuals aged 12 years and older and Moderna for persons aged 18 years and older. Besides the current vaccine components, the updated boosters contain BA.4 and BA.5 spike protein... (Source: CDC, Sept. 1, 2022).

#### Over 200 crore vaccine doses administered in India

COVID-19 cases continue to show a declining trend in India. There were 6,168 new cases in the last 24 hours. The active cases are now less than 60,000. The current recovery rate is 98.68%. The 7-day positivity rate is 2.51%. So far, over 200 crore total vaccine doses have been administered, including 94.29 crore second dose and 16.15 crore precaution dose... (Source: Press Information Bureau, Sept. 2, 2022)

#### Asymptomatic COVID-19 patients can now end their isolation but with a mask in Ontario

Ontario in Canada has allowed COVID-19 patients to end their isolation 24 hours after they become asymptomatic but they have to use a mask. Such asymptomatic patients, who are still COVID-positive, including their close contacts, can also go to work or attend school, but wearing a face mask for 10 days is compulsory. However, they cannot visit high-risk settings such as hospitals and long-term care facilities... (Source: Medscape, Sept. 1, 2022)

*With inputs from Dr Monica Vasudev*

#### Minutes of an International Weekly Meeting Held by HCFI Dr KK Aggarwal Research Fund

##### Topic: COVID-19 Update from National Medical Association

August 20, 2022 (Saturday, 9.30 am - 10 am)

➤ In Singapore, private sector hospitals are fully occupied and there is a long waiting list for admissions to hospital. There is a similar problem in public sector hospitals too. Patients often stay in emergency unit for up to 72 hours and sometimes

are often discharged from the emergency unit itself. The elderly population has been deconditioned, both physically and mentally, over the 2 years of the pandemic.

- The problems being faced are a huge deluge of backlog of cases and shortage of nurses. They have either resigned to take a break as they have not seen their families for more than 2 years or moved to countries like the UK, US, Australia and New Zealand, where they have been offered green cards/permanent residencies and are allowed to bring their families along. This was not allowed in Singapore. A large cluster of tuberculosis (TB) was detected in an entire block of flats, where at least 70 to 80 people tested positive for TB. The whole apartment block was sealed off.
- There are no infectious disease wards in Pakistan in any public sector hospitals. The PMA has advised the government that such wards should be permanently established to manage infectious diseases other than COVID-19. Like many countries, Pakistan too has been facing economic burden since the pandemic. There is a staff shortage because of brain drain. Also, there are very few schools/universities for nurses and other paramedical staff. This is also a reason for less staff in hospitals. Security is also a concern, especially in rural areas.
- South Africa is also facing problems such as price hike, escalating petrol prices, staff shortage, drug stock-outs, broken equipment, shortage of doctors who have left for countries like Ireland, UK, Canada. These critical problems are not being addressed. The government is facing a funding issue and there is insufficient budget to recruit more doctors and nurses. Private hospitals are full with patients of chronic diseases. COVID-19 disrupted the follow-up of chronic disease such as TB and now patients are coming back with advanced disease. Infections such as flu, respiratory syncytial virus (RSV) are rising as most people now do not wear masks. The winter season and rains have added to the problem. Flooding has led to rise in water-borne diseases.
- COVID-19 has pushed back all other diseases, which are now coming back in a fast and furious manner.
- There are several aspects of COVID-19, which are still unknown to us. But it has had a tremendous effect on the immune system, though the extent of its impact is uncertain.

- People across the world have gone through lot of stress in the last couple of years due to loss of freedom, travel, livelihood; many lost their families. This is difficult to quantify. As a result, many people, including health care workers, have quit their jobs.
- Several challenges are still left over from COVID-19. Chronic diseases are not well taken care of and surveillance for many ongoing infectious diseases is being curtailed.

### Participants – Member National Medical Associations:

Dr Yeh Woei Chong, Singapore, Chair of Council-CMAAO; Dr Wasiq Qazi, Pakistan, President-elect, CMAAO; Dr Mvuyisi Mzukwa, South Africa; Dr Akhtar Hussain, South Africa; Dr Salma Kundi, Pakistan; Dr Mulazim Hussain Bukhari, Pakistan

**Invitees:** Dr EC Ng; Dr Patricia La'Brooy; Dr S Sharma, Editor-IJCP Group

**Moderator:** Mr Saurabh Aggarwal

## Updates in Medicine

### Biomarkers to predict post head injury outcomes

Measuring the levels of glial fibrillary acidic protein (GFAP) and ubiquitin carboxy-terminal hydrolase L1 (UCH-L1) on the day that the traumatic brain injury (TBI) occurred can portend the risk of severe disability or mortality within 6 months. GFAP and UCH-Li has been FDA approved as indicator of CT scan head post head injury... (Source: NIH, Aug. 10, 2022)

### Beneficial effects of monoclonal antibody in asthma

In the NIH MUPPITS-2 study published in *The Lancet*, mepolizumab, a monoclonal antibody, reduced the incidence of asthma episodes by 27% in children and adolescents with difficult to control asthma, high eosinophil. Mepolizumab is FDA approved for children aged ≥6 years with eosinophilic asthma... (Source: NIH, Aug. 10, 2022)

### Baloxavir gets FDA nod to treat young children for flu

The first drug - baloxavir marboxil - for the treatment of influenza in children aged 5 to 12 years has been given the go ahead by the US FDA as single dose. Baloxavir is already approved for treatment of flu for individuals aged 12 years and older, including treatment of people at risk of flu-related complications... (Source: Medscape, Aug. 12, 2022).

### Leaving small kidney stones increases risk of relapse

Removal of the small asymptomatic renal stones simultaneously with ureteral or contralateral kidney

stones reduces the likelihood of these seemingly trivial stones becoming symptomatic. At the same time, it decreases the frequency of visits to the emergency department compared to leaving them... (Source: *N Engl J Med*, Aug. 10, 2022)

### Early institution of physiotherapy for low backache reduces specialist visits

Starting physiotherapy early in patients with acute low back pain reduced the need for imaging and specialist physician visits within 1 month of the first visit and a year later in comparison to patients who did not receive early physiotherapy, according to a study in *BMC Health Services Research*. They were also less likely to visit a pain specialist or a chiropractor... (Source: *Medscape*, Aug. 11, 2022)

### FDA issues EUA for intradermal Jynneos vaccine for monkeypox

The US FDA has granted emergency use authorization (EUA) for the Jynneos, the Modified Vaccinia Ankara (MVA) vaccine, for adults aged ≥18 years at high risk for monkeypox infection. The vaccine is generally given in two doses subcutaneously at a gap of 28 days for smallpox and monkeypox. The FDA has now allowed fraction of the dose for intradermal administration to increase the available doses, but retains the effectiveness.... (Source: *US FDA*, Aug. 9, 2022)

### Time-restricted eating encourages weight loss

A new 14-week study of 90 people with obesity in *JAMA Internal Medicine* says that time-restricted eating for 8 hours from 7 am to 3 pm reduced body weight more effectively than eating for ≥12 hours; -6.3 kg vs. -4.0 kg, respectively. It also reduced the diastolic blood pressure. However, long-term studies are needed to assess its effectiveness in lowering body fat... (Source: *JAMA Internal Medicine*, Aug. 8, 2022)

### Evaluate all patients with acute anterior uveitis for musculoskeletal symptoms

Patients with acute anterior uveitis often have high prevalence of undiagnosed coexistent spondyloarthritis. More than half (56%) of the patients with acute anterior uveitis were found to also have spondyloarthritis. In 70% of patients, it was detected during the study. Presence of psoriasis, HLA-B27 positivity, raised C-reactive protein and male genders were factors that had a positive association with diagnosis of spondyloarthritis... (Source: *Arthritis & Rheumatology*, July 29, 2022)

With inputs from Dr Monica Vasudev