Update on the risk factors of COVID-19

STAR HEALTH DESK

With COVID-19 cases rising in the young population, the Centres for Disease Control and Prevention (CDC) has a clear message for all adults: when it comes to age, there is no bright line for risk.

There is not an exact cutoff of age at which people should or should not be concerned. After analysing cases across the United States, the CDC announced updates to the characteristics that seem to leave people vulnerable to the worst COVID-19 outcomes: hospital stays, intensive care, and death.

The risk from a COVID-19 infection increases with advancing age. In general, people in their 50s are at a higher risk than people in their 40s. Likewise, people in their 60s and 70s are at a higher risk than those who are in their 50s.

Conditions in which there is strong evidence of increased risk include chronic kidney disease, chronic obstructive pulmonary disease (COPD) like emphysema, people with lower immune health because of a solid organ transplant, obesity - those with a BMI greater than 30, serious heart conditions like heart failure and coronary artery disease, sickle cell disease and type 2 diabetes.

Conditions that might place a person at a greater risk for a severe outcome from COVID-19 are asthma, dementia, cerebrovascular diseases such as stroke, cystic fibrosis, high blood pressure, lower immune health, pregnancy, liver disease, scarring in the lungs (pulmonary fibrosis), smoking, type 1 diabetes and thalassaemia.

Jay Butler, Deputy Director of infectious diseases at CDC, said hypertension had been moved to the list of conditions that could place a person at increased risk because they had learned more about the role of hypertension, on its own, and some of the things that hypertension can lead to, like kidney damage and heart disease.

"We have been able to tease apart a little more how much just having hypertension alone, as opposed to having some of those end-organ manifestations of hypertension, might be driving the increased risk," he said.

Obesity, in contrast, seemed to be its own, independent risk, even apart from other health conditions that may also happen in people who are obese, like diabetes.

A new study by the CDC showed that pregnancy can make the course of COVID-19 more severe for women, though it does not seem to increase their risk of death.

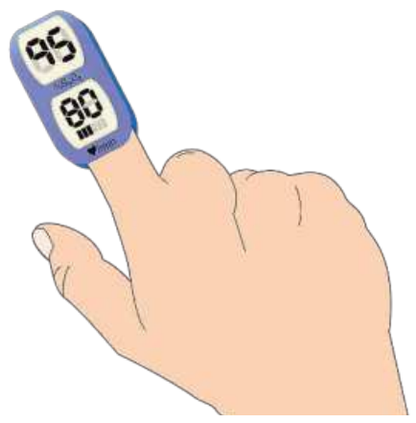
In a study that compared COVID-19 outcomes among women between the ages of 18 and 44 by pregnancy status, nearly one-third of the pregnant women were hospitalised for their infections, while only about 6% of the non-pregnant women had to be admitted to the hospital.

Pregnant women were also more likely to need ICU care and to receive breathing support from a ventilator, but they were not more likely to die. About 0.2% of both pregnant and non-pregnant women died of COVID-19 during the study period.

Study authors stress that women who are pregnant during the pandemic should take extra care by staying at home whenever possible, wearing a mask in public, standing or sitting at least 6 feet away from others when they do have to go out, and washing their hands often.

Source: WebMD

HEALTH *bulletin*



Pulse oximetry in outpatients with COVID-19

Hypoxemia out of proportion to respiratory effort — "silent hypoxemia" — has been reported in patients with COVID-19. Given the lack of understanding of reliable predictors of severity in patients with COVID-19 who may appear well enough to be discharged, some experts have recommended the use of outpatient pulse oximetry to identify decompensating patients.

This study included 77 outpatients (median age, 44 years) who were tested for SARS-CoV-2 in one hospital system, given pulse oximeters to take home, and ultimately diagnosed with COVID-19. Patients were instructed to record their oxygen saturation three times each day and return to the ED if the saturation was (92% or they felt they needed care.

This study only reports on a small subset of patients given oximetres, so the overall utility of this intervention in a suspected but unconfirmed COVID-19 population is unclear. However, given that 10% of these outpatients were admitted to the ICU and 2.6% had died at follow-up, pulse oximetry is an enticing low-risk intervention which seems to help identify decompensating outpatients with COVID-19.

The experience of COVID-19 and the first plasma donation

DR NAFISA TASNEEM

I am a doctor at a COVID-19 dedicated hospital where I kept serving during this pandemic without bowing down to my family's weary of constant fear of catching the deadly disease. Unfortunately, the suffocating personal protective equipments (PPE), litres of sanitiser and my over carefulness - nothing worked. I was tested COVID-19 positive!

A news too shocking to absorb for my family especially my mariner husband who was on board a ship and about to sail through the deep sea the very next day. My feelings, however, were blended with half gratefulness for my parents being tested negative; half the fear of the unknown consequences with toppings of sorrow. I got admitted to the Combined Military Hospital (CMH) in Dhaka.

Days of isolation in CMH began, thankfully without much physical illness. The embellished cabins, tasty healthy meals, and late-night chat with my cabin mate were something I relished because I was an asymptomatic patient. Yet, at dawn and dusk, an awful silence dwelling in the empty corridors made a lump grow in my throat.

Amidst all these, my beloved's satellite call from the deep sea was more than inspiring. My phone overflowed with kind gestures and concerns from my family, friends, colleagues and even from the people I barely remembered talking to.

PHOTO: COURTESY

Dr Nafisa Tasneem, a working physician at the Anwar Khan Modern Hospital - a COVID-19 specialised hospital in Dhaka, won the battle against Coronavirus and subsequently donated plasma as the first female donor in Bangladesh.

By the grace of Almighty, I was discharged from CMH with a small ceremony where I could not thank enough the doctors, nurses and staff of CMH for the mighty job they were doing.

After coming I learned about the convalescent plasma therapy which showed effectiveness in treating critical COVID-19 patients because it is rich in antibodies against the virus.

The first thing to hit my mind was that my plasma was valuable, so I had to make the best use of it. I declared my will of plasma donation on a public platform. The response was overwhelming! Within a day a critical patient's family implored me to donate. I rushed to the hospital and the doctor checked on my documents and my parameters which were aligned with the standards required to be 'fit' to become a plasma donor.

It took about 45 minutes to extract my plasma in the apheretic machine and interestingly, to return all the blood cells back into my body. I did not feel any discomfort while donating the plasma. After the extraction for a patient, with my consent, another extraction was done for another patient. The doctor thanked me and said that my plasma donation can save two lives. I could not be any happier! On that very evening, this news went viral on the internet.

I am still overwhelmed by the immense appreciation and applause from people all over Bangladesh. I became the first female plasma donor in my country. Being in people's prayers and get chosen to save lives by the Almighty is unimaginably rewarding and worth living for!

E-mail: drnafisamahmud@gmail.com

CASE STUDY: MIS-C

PHOTO: COURTESY

A rare childhood disease linked to COVID-19

Bangladesh's first cases treated successfully

STAR HEALTH REPORT

COVID-19 has affected people of all age groups but has been found more commonly in older adults and with significantly worse impacts. Previously, it was thought children are less likely to be affected, with 11.8% and 4.2% of all affected people in Bangladesh being below the age of 20 and 10 years, respectively. Yet, clinical reports from the United States and across Europe suggest there is a new clinical syndrome linked with COVID-19 that children are particularly susceptible to.

This new and rare disease called *Multisystem Inflammatory Syndrome in Children (MIS-C)* or *Paediatric Multi system Inflammatory Syndrome (PMIS)* can cause widespread inflammation restricting blood flow and damaging multiple organs like the heart, kidney, and liver.

In Bangladesh, it was first identified at Evercare Hospital, Dhaka recently, says a press release. Dr M Quamrul Hassan, Senior Consultant of Paediatrics, Dr Tahera Nazrin, Consultant of Paediatric Cardiology along with the paediatric and intensive care team diagnosed and treated two such cases achieving positive outcomes. These were the first reported cases in the country.

The patients were a 3 months old girl and a boy who was 2 years old. Both children presented with a high fever of 102 to 105°F for 5 and 7 days respectively and had diarrhoea, congested eyes, red lips, and mild swelling of feet. There was significant involvement of the heart with the widening of their coronary arteries which supply blood to the heart itself. The older child also experienced convulsion and went on to suffer from swelling of heart chambers, low blood pressure and heart failure. He had also tested positive for COVID-19 in an RT-PCR test. Although the other patient had tested negative, her family members all tested positive soon after. The male child required treatment in the Intensive Care Unit (ICU).

However, both patients had to be closely monitored and were given Intravenous Immunoglobulin (IVIG) – a mixture of antibodies, prepared from the blood plasma of healthy donors, which can help fight infection and inflammation. They were discharged from the hospital as their conditions stabilised and improved significantly following treatment.

In this ongoing pandemic, parents should be wary of this rare but dangerous new phenomenon alongside preventing their children from contracting the noxious virus. It is important to be aware of how this disease manifests and what we can do to prevent it from affecting our children.