Editorial

COVID-19: Where we are in Bangladesh

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December 2019, a novel coronavirus was identified as the cause of a cluster of pneumonia cases in Wuhan, a city in the Hubei Province of China. It rapidly spread, resulting in an epidemic throughout China, followed by a global pandemic declared by the World Health Organization and designated the disease as COVID-19 (coronavirus disease 2019) and the virus that causes COVID-19 is designated severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2).

8th September, Bangladesh has passed 6 months in detecting COVID-19 since 8th March 2020, on this date Bangladesh has overtaken France to secure its position as 14 in the worldometer list. On that day the world total number of cases 329251 and the total deaths were 4552, and we have one of the lowest mortality rates in the world at 1.38 percent. On the other hand, USA at the top of the list with more than 6.4 million cases and more than 1.9 million deaths. The alarming information is that our neighboring India is at the second place with total cases of more than 4.3 million with more than 1100 deaths on 8 September with a rate of 1.69% which is a bit higher than us. From the very beginning of detecting the COVID-19 our capacity has increased to a great extent, as of 8th September 14,973 samples were tested in 94 labs across the country but definitely it is not an adequate sample representing the total population. The sample that must be more than 20 thousand a day and the more the sample size the more it would be the representative of total population.

The common clinical features in our patients as shown in an unpublished data of 400 hospitalized patients in DMCH showed fever 300 (75%), cough 247 (61.8%), respiratory distress 140 (35%), anosmia 154 (38.5%), anorexia 119

(29.8%), lethargy 106 (26.5%), sore throat 93 (23.3%), headache 80 (20%), body ache 73 (18.3%), runny nose 36 (9%), diarrhea 32 (8%), chest pain 26 (6.3%), vomiting 20 (5%), conjunctivitis 8 (2%) and hoarseness of voice 5 (1.3%).

Till today there is no treatment for this disease, the only thing is to provide supportive treatment for most of the cases. Those with moderate to severe and critical illness are hospitalized together with some of the mild cases having co-morbidities. Anticoagulation in COVID-19 pneumonia has drawn attention widely because of the facts that this condition has widely associated with various pro-coagulant states leading to development of VTE or arterial thrombosis leading to strokes and ischemic heart disease. Still there is lack of strong evidence in favor of anticoagulation but some RCTs are ongoing which will provide evidences whether the anticoagulation is doing harm or benefit.

Many other drugs tried and applied in this condition as repurposing use but only dexamethasone showed mortality benefit in the RECOVERY trial only in those who required oxygen therapy or who was on ventilators. Antiviral drugs did not show any promising results but Remdesivir showed some benefit of reducing only the hospitalization time with no mortality benefit in Adaptive COVID-19 Treatment trial (ACTT-1) sponsored by the NIH.

The only supportive treatments that can safe life is oxygen therapy starting with nasal cannula, oxygen masks and ended up with high flow nasal cannula. Initially there was a craze throughout the world that ventilators would be the only answer but it showed that the patients those were put on ventilators the mortality is extremely high. Cytokine storm or cytokine release syndrome was thought to be the cause of respiratory pathology and treatment with IL-6 inhibitors got much attention. Recently the theory of cytokine storm has

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been questioned. And also in RCTs the IL-6 inhibitors failed to achieve the primary or secondary endpoints. Moreover, the use of the IL-6 inhibitors is associated with bacterial and other infections.

Prevention is better than cure for all health conditions whether infectious or chronic diseases. As there is no definitive treatment yet available for COVID-19 and nor any vaccine yet developed, the main and only approach would be the traditional way of prevention and control of the disease.

Mere detecting the cases is not enough to contain this COVID-19, we need to respond adequately by doing treatment and isolation of the cases, contact tracing and quarantine of the contacts. This approach of the public health measures were lacking from the very beginning and as result of that Bangladesh is in its present situation otherwise it would be totally different. As we have constraints in the manpower to provide those services in the community we have to give adequate concentration on developing public awareness to prevent and contain the virus through standard health care protective measures.

Systematic review provides the best available information on three simple and common interventions to combat the immediate threat of COVID-19 are using masks, maintaining physical distance and frequent hand washing. Covering the mouth and nose is a public health measure designed to capture respiratory droplets from the wearer, who may be asymptomatic, to reduce transmission of respiratory infections. Although the majority of countries and public health agencies now recommend or mandate face coverings against covid-19. Physical distancing of at least 1 m is strongly associated with protection, but distances of up to 2 m might be more effective. So avoiding to go to the crowded places should be should be maintained as far as possible. Washing hands with soap and water for at least 20 seconds especially after touching anything with hands. If soap and water are not readily available, hand sanitizer that contains at least 60% alcohol should cover all surfaces of hands and rub them together until they feel dry. Avoiding touching eyes, nose, and mouth with unwashed hands is another important measure one should follow. These public health measures are the main stay of control and prevention of the COVID-19.

Vaccine development has been going on in an unprecedented pace; so far there 42 candidate vaccines are in clinical trial

among them at least 10 in phase 3 as stated by WHO on 2 September 2020 in a draft landscape of COVID-19 candidate vaccines. Bangladeshi researchers will soon start the clinical trial in the vaccine development as they have just completed their preclinical studies with promising results. The vaccine researchers are optimistic about the effective vaccine might be available by the end of 2020 or by early 2021. But there are several questions still there; how long will it take to cover about 60-70% of world population with vaccination; are the people ready to take the vaccine; will the vaccine coverage be easy; and what will happen to the people in the developing world with financial constraint? So it is unpredictable that how long it will take to cover the world population with COVID-19 vaccination.

At this stage of COVID-19 in Bangladesh, we the healthcare workers are well oriented and our hospitals are equipped with the treatment armamentarium so far available. But the awareness among the general people is extremely lacking which will have deleterious effects in transmission of COVID-19 in coming days.

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