

Healthcare for non-Covid-19 liver disease patients during the Covid-19 pandemic in Bangladesh: Current trend and future implications

To the Editor,

Since corona virus disease-19 (COVID-19) pandemic began to surge, all essential services have since been curtailed globally. Healthcare services is not exception to this rule. In Bangladesh, like elsewhere, while the healthcare providers are trying to cope up with the sudden influx of COVID-19 patients, the vast majority of non-COVID patients with diverse pathological conditions have been facing an extremely difficult situation to avail essential healthcare. On one hand, many hospitals have become dedicated COVID-19 medical centers. On the other hand, several others have been forced to reduce their regular services. This particularly applies to the private sector healthcare facilities. Although public hospitals offer three quarter of all hospital-based healthcare services in Bangladesh,^[1] the contribution of private sector in catering particularly the specialist consultation in this country in private hospitals is important.

Hepatology in Bangladesh has also felt the heat. Most of the centers providing tertiary healthcare for liver disease patients in Bangladesh, especially those in the private sector are barely functioning these days. Here, we share how the busiest private sector liver center in the country is trying to cope up with the COVID-19 pandemic in Bangladesh. Located centrally in Dhaka, the capital city of Bangladesh, this center is part of a specialized tertiary hospital. It's services range from specialist outpatient hepatology consultation and inpatient department comprising of fully equipped intensive care unit (ICU) and high dependency unit (HDU). The center has a well-equipped endoscopy suite offering diagnostic as well as therapeutic endoscopic procedures, including esophageal band ligation (EVL), gastric variceal glue injection, argon plasma coagulation (APC), therapeutic endoscopic retrograde cholangio-pancreatography (ERCP), and other maneuvers. Other specialized services offered to liver disease patients by this center include radio-frequency ablation (RFA) and trans-arterial chemoembolization (TACE). However, during the ongoing lock-down the center has experienced drastic reduction in the number of both outpatient foot-falls and inpatient admissions [Figure 1]. Number of therapeutic endoscopic interventions have reduced as a consequence declined markedly [Table 1].

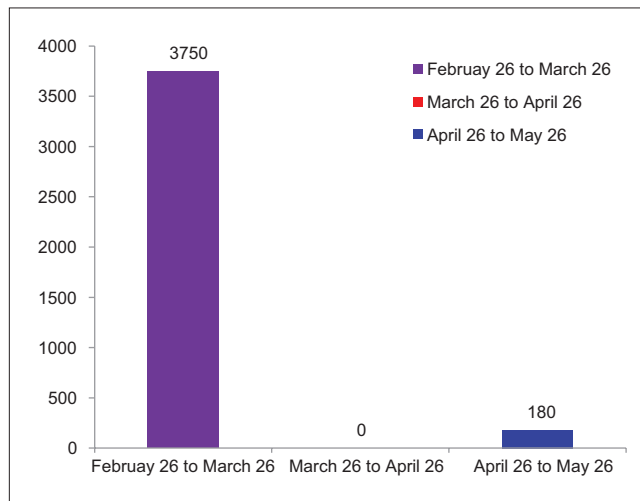


Figure 1: Out patient foot-falls seeking specialist Hepatology consultation

Table 1: Therapeutic endoscopic interventions procedure and outcome

Period	No. of therapeutic ERCP & EVL
February 26-March 26	130
March 26-May 26	23

Similar experience has been reported from other countries of our region. In Pakistan, there has been 82% reduction in new registration and screenings for hepatitis B (HBV) and hepatitis C (HCV) viruses during the first two weeks of lock-down from 23 March 2020. There has also been 95% reduction of initiation of treatment for patients with HBV and HCV in the country during this period and PCR sample collection and transportation for assessment of HBV and HCV had been halted. Thirty-two hepatitis clinics of the country became inactive and 117 were performing with low activity during first two weeks.^[2]

Telemedicine approach has been adopted for liver disease patients by our center as well as other centers in the public and private sectors in Bangladesh. These include adaptation of different online platforms including Zoom, Meet, Stream Yard, Skype etc., and also utilization of WhatsApp, cell phone to Facebook and main stream electronic media to offer specialist hepatology consultation. Such measures have benefited liver diseases patients, although this is insignificant compared to the pre-COVID-19 period. In our center we have been able to diagnose complicated liver disease patients through telemedicine, including patients with near to rupture liver abscess, decompensated cirrhosis of liver, hepatocellular carcinoma, and cholangiocarcinoma. Patients with liver diseases who need to consult their hepatologists can now avail this opportunity by not having to travel to our center in person, thus maintaining the principle of social distancing and lock-down [Figure 1]. Besides patients who need emergency

therapeutic interventions could also be stratified through this approach successfully and they now have the opportunity to avail such essential treatment from our center [Table 1].

Endoscopic procedures are discouraged during COVID-19 pandemic as these are aerosol generating procedures associated with risk of severe acute respiratory syndrome corona virus-2 (SARS-CoV-2) transmission. Several professional associations have issued guidelines for endoscopic procedures during this ongoing pandemic,^[3,4] which recommend routine endoscopic procedures to resume after new COVID-19 cases have declined significantly in a given geographic region for two successive weeks. These guidelines also recommend prioritizing endoscopic procedures based on urgency by physician's professional judgment.

In our center we are selecting patients who need therapeutic endoscopic interventions urgently through online consultation and offering such treatment to them. For protection of the personnel involved with the therapeutic endoscopy procedures, we use personal protective equipment (PPE) manufactured locally by our readymade garments industries. These are however level 1 PPE and fall short of the WHO standard.^[5] We use N-95 8210 masks (3M, USA), hand gloves (WRP Asia Pacific Sdn Bhd, Malaysia), eye glasses (Walton High Tech. Ind. Ltd., Bangladesh) and eye shields (Walton High Teh. Ind. Ltd., Bangladesh) as part of the PPE. There is however no provision of Hepafilter in our Endoscopy Suite.

With introduction of newer drugs against COVID-19, although with limited efficacy and prospects of vaccines offering some protections against SARS-CoV-2 in the horizon, it is expected that situation will improve over the next few months to years. However, it remains the reality that we have to learn to live with COVID-19 for few more years, if not longer. It is expected that life will not be the same as it used to be before 2020 and so will not be our way of availing and delivering healthcare. In Bangladesh, it was common for our patients to travel long distances for consulting specialists for minor complaints or for regular follow ups, which incurred significant expenses in terms of loss of wage, expenses of travelling and overnight stays in bread and breakfast facilities [Figure 2]. In addition, these contributed to loss of productive man-hours, traffic congestion, environmental pollution etc., to name a few. Most importantly the country's healthcare delivery system became over-burdened and almost exhausted.

A shift towards virtual medical consultation for liver disease patients, as well as patients of other disciplines, in Bangladesh during the ongoing COVID-19 pandemic is likely to reshape our perception of healthcare in the coming days, even after COVID-19 becomes a bygone story. It may be assumed that in the post-COVID-19 era, liver care in Bangladesh will be mostly through direct physical 'specialist-patient meetings' as before, but a significant part of it will continue to be online. Such a shift in healthcare in Bangladesh towards online platforms

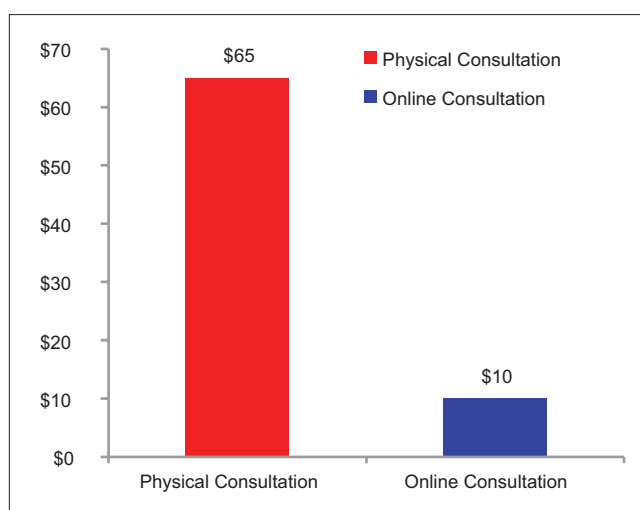


Figure 2: Average cost of seeking specialist Hepatology consultation

in the future is likely to benefit the country in a number of ways, including release of pressure on the country's healthcare delivery system, reduction in environmental pollution and traffic jam, reduced loss of man-hour etc., to name a few. The exact benefit that the country will derive from this is a matter of future and further research. However, it can be easily said that individual patients will be benefitted monetarily [Figure 2]. Besides it is also expected that modern diagnostic facilities will be expanded to the peripheral parts of the country, as many patients will get investigations done locally and seek regular specialist consultations online, not having to travel physically to the major cities of the country.

It is expected that primary health care will benefit greatly from tele-medicine. On one hand, primary care physicians will be able to cater to patients spread out over a wider geographic region. In a country with scarcity of graduate medical practitioners, this is no doubt good news for the people of Bangladesh. On the other hand, primary care physicians will be able to get expert opinion from relevant specialists and refer patients to them as and when necessary, thus reducing the number of unnecessary referrals. This will also reduce the patient burden on specialists and specialized centres and will lead to better service delivery. Moreover, patients will also relieve of unnecessary travelling, waiting and expenditure. If implemented, tele-medicine has the potential of transforming the entire scenario of existing primary healthcare practice in Bangladesh.

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Conflicts of interest

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