

Narrative Report 9



Combating non-communicable diseases during COVID-19 pandemic

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Summary

COVID-19 is an unprecedented global crisis leading to massive morbidity and mortality, economic losses and disruption of daily activities. Although the clinical manifestations of COVID-19 are dominated by respiratory symptoms, severe cardiovascular damage has been reported in some patients (2). In addition, patients with underlying cardiovascular diseases (CVDs) have shown increased risk of death (1). Evidence shows that patients with underlying CVD have an adverse prognosis, accounting for a large proportion of the deaths from COVID-19 (2). This narrative review highlights the activities conducted by the Directorate of NCD during COVID-19 pandemic in Sri Lanka.

Public health response and its impact

In a study among patients with severe symptoms of COVID-19, 58% had hypertension, 25% had heart disease and 44% had arrhythmia (3-4). According to the Pneumonitis Diagnosis and Treatment Program for New Coronavirus Infection in China, elderly people with comorbidities are more likely to be infected with SARS-CoV-2, especially those with hypertension, coronary heart disease or diabetes (5).

In responding to this pandemic, Sri Lanka has set an example to the entire world up to now, with its timely,

proactive and effective measures despite being a middle-income country. During the COVID-19 epidemic, non-communicable diseases (NCD) related services including regular clinics, essential investigations and interventions became less accessible due to stern action taken to restrict people's movement. On the other, it is also important to minimize unnecessary exposure of patients with NCD to COVID-19. Several initiatives were taken by the NCD Unit to ensure the essential services to patients with NCD and promote health and wellbeing of the public as a whole during this period. Discontinuation of medicines leads to serious

complications of NCD putting the patients in danger and causing an additional burden to the health system. Therefore, a circular on "Guideline for the Management of Patients with NCDs in Hospitals During COVID-19 Outbreak" was disseminated, aimed at ensuring the routine services being offered to patients with NCD at government clinics, emergency care, inward car; and specific care for patients with NCDs under institutional or self-quarantine, suspected or diagnosed with COVID-19 infection. To complement, the following key activities were undertaken by the Directorate of Non-Communicable Diseases, Ministry of Health, Sri Lanka

Continuous supply of medicine

To ensure continuous supply of medicine to patients who could afford to purchase them from the private sector, a web-based mechanism was introduced to deliver medicines to the doorstep of patients through the state (Osusala) and private pharmacies in collaboration with the Pharmacy Owners Association. This system catered to the needs of patients with NCDs being followed-up at both government and private sectors. State pharmacies (Osusala) and the National Medicine Regulatory Authority (NMRA) approved private pharmacies partnered this project which gave the public the choice of selecting a pharmacy through the Ministry of Health Website. Patients were requested to submit an image of the most recent prescription through WhatsApp/Viber to the pharmacy, following which the medicines were delivered to the customers for a nominal delivery fee. A guideline was issued by the Director General of Health Services (DGHS) to pharmacies on implementing this system while maintaining high quality of the service and adhering to standard safety measures. Over 1800 pharmacies engaged in this task, covering all districts and 342 (96.3%) medical officers of health (MOH) areas; majority (18.8%) from Gampaha District. A tri-lingual helpline was established to guide the public in locating their nearest pharmacy and respond to customer complaints. During the first two weeks of this process, state and private pharmacies had

successfully performed over 275,000 deliveries to their customers. There were 165,787 web-page views during the first three weeks. Of the 68,167 web-page users, 80.0% (n=64,805) were new users; 94.9% (n=47,489) were local clients; 78.8% (n=53,716) accessed through a mobile application; and the rest through a desktop computer; 72.64% (n=68,167) accessed the web-page through the link given in the Ministry of Health Website and the rest accessed through the links shared in Facebook mobile. This feedback highlights that web-based mechanism is a useful tool to facilitate doorstep delivery during the COVID-19 outbreak, which could be further developed into a mobile application with advanced functions such as order tracking and cost estimation with payment methods. This system can be used in the long run by pharmacies who are willing and have the capacity to cater to people who could afford and prefer this system. A web-based survey among pharmacies is being conducted to assess the effectiveness and challenges of this new mechanism. An automated telephone survey is also being conducted in collaboration with the Center for Disease Control and Prevention (CDC), Atlanta, USA to evaluate the access of essential medicines among patients with NCD during the current outbreak.

Public awareness

The public were educated through media statements and posters/videos over mass/social media using health messages indicating the danger signs of emergencies related to NCD and advising patients on how/ when to seek medical care and other NCD related essential services at hospitals, while taking precautions to minimize COVID-19 infection risk. For NCD patients followed up at government hospital clinics, the Ministry of Health initiated a mechanism to deliver medicines through the Department of Postal Services. A comprehensive list of contact numbers of clinics was developed and published in the Ministry of Health Website and disseminated through mass/social media enabling the patients to contact the clinic and get their drugs home delivered.

Multi sectoral involvement

Medical officer-NCD (MONCD) who is the focal point of the Directorate of NCD, at the district level coordinated the doorstep delivery of medicines from hospital clinics through the postal service and that operated by the state and private pharmacies. They also coordinated and supervised another alternative method for home delivering medicines, which was operated through medical staff (public health nursing officers (PHNO) and public health midwives (PHM)) and non-medical categories (Grama Niladhari officers and development officers attached to divisional secretariats, village leaders and volunteers). A unique feature was the utilization of services of the newly recruited PHNO for providing essential domiciliary care to needy patients backed by a guide issued on how to provide the services during this outbreak. Supply of drugs to patients with NCD in the quarantine centres was also coordinated by the MO-NCD in collaboration with the Sri Lanka Army.

Promoting a healthy lifestyle

Engaging in a healthy lifestyle controls the modifiable risk factors as well as prevent complications of NCDs. It would further minimize the risk of COVID-19 and its high morbidity and mortality by boosting their immunity. Messages were developed for mass/social media in collaboration with the Health Promotion Bureau (HPB) targeting the general public and patients diagnosed with NCD. Use of tobacco, alcohol, unhealthy diet, obesity and physical inactivity increase the risk of developing severe COVID-19 infection (6-10), thus the focus was “quit smoking, avoid alcohol and take a healthy and nutritious diet, prevent weight gain and be active at home”. The use of social media in the current crisis situation which reached over two million views, was found to be an effective mode of communication to promote a healthy lifestyle among the general public and encourage them to take care of their own health. For patients with NCD followed-up at government hospital clinics, one million tri-lingual leaflets with health messages, printed in collaboration with the World Health Organization (WHO) were distributed along with the medicines delivered via postal service.

This was useful since most of the routine communication channels were not operational at the community level.

Maintaining continuity of care

Tele-medicine was introduced for consultations with financial and technical support of private sector organizations to prevent overcrowding at the clinics at tertiary level hospitals and to minimize unnecessary clinic visits of high risk or immunocompromised patients. “My Doctor” tele-medicine system was established at 16 nephrology clinics in government hospitals across the country for the specialist or medical officers to respond to problems among patients with kidney transplant or on dialysis via audio, video or e-chat through their mobile tele-communication while at home. The “Ayubo Life” tele-medicine system is planned to be introduced at the endocrinology and cardiology clinics at the National Hospital Kandy coupled with back-referrals of selected patients to primary care level hospitals closest to their residence. Specialist consultations for these patients using the tele-medicine system are offered through the primary care medical officers or through the AyuboLife application in the patient's mobile phone while at home. The strong collaboration with all other professional colleges was a strength in making these initiatives a success.

Lessons learnt and way forward

The initiatives taken by the Directorate of NCDs are an example of maintaining universal health coverage to patients with NCD to the best possible level during this public health emergency, where equity in access to essential medicine was ensured while maintaining quality of the service and affordability. The divisional secretariat, village leaders and volunteers were mobilized in the door-step delivery of medicines of the clinic patients, giving inspiration and setting the platform for future innovations in multi-sectoral involvement in controlling NCDs at grass root level. The private-public partnerships established in this regard with private pharmacies and initiation of tele-medicine linking the tertiary and primary care level hospitals and patients at home can

be continued with people who prefer this system. Not having a complete database of clinic patients including contact details at hospitals was the major challenge in implementing the delivery of medicines to doorsteps, to implement tele-medicine and to resume functions of the clinics exclusively through an appointment system that needs to be rectified to achieve patient-centred care.

Author Declaration

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