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Impact of COVID-19 on routine care for chronic diseases: A global survey of views from healthcare professionals



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ABSTRACT

Routine care for chronic disease is an ongoing major challenge. We aimed to evaluate the global impact of COVID-19 on routine care for chronic diseases. An online survey was posted 31 March to 23 April 2020 targeted at healthcare professionals. 202 from 47 countries responded. Most reported change in routine care to virtual communication. Diabetes, chronic obstructive pulmonary disease, and hypertension were the most impacted conditions due to reduction in access to care. 80% reported the mental health of their patients worsened during COVID-19. It is important routine care continues in spite of the pandemic, to avoid a rise in non-COVID-19-related morbidity and mortality.

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Currently most global healthcare resources are focused on coronavirus disease (COVID-19). This resource reallocation could disrupt the continuum of care for patients with chronic diseases. We aimed to evaluate the global impact of COVID-19 on routine care for chronic diseases.

We developed an English language nine-item online survey targeted at healthcare professionals (HCPs) across the globe, using a drop-down menu format. Prior to dissemination the survey was tested by a group of HCPs for the time to complete and to ensure no questions were distressing. The survey was administered between March 31 and April 23, 2020. The survey link was posted to social media (including Twitter, Facebook, and Instagram), websites, and mailing lists. The posts were sharable to facilitate snowball sampling. Informed consent was obtained. Descriptive analyses were performed.

202 HCPs from 47 countries responded; 47% from Europe, 20% Asia, 12% South America, 10% Africa, 9% North America, 2% Oceania. 75 (37%) were primary care physicians, 40 (20%) hospital physicians, 46 (23%) nurses, and 41 (20%) other HCPs (Table 1). Only 14% reported continuing face-to-face care for all consultations, whilst the majority reported a change to either a proportion (35%) or all now being carried out by telephone (45%). HCPs who selected other

(6%), highlighted use of telemedicine where online video consultations were being used through Zoom, Skype, WhatsApp, Facebook messenger. Some reported home visits, or cancellation of all outpatient appointments.

Diabetes (38%) was the condition reported to be most impacted by the reduction in healthcare resources due to COVID-19, followed by chronic obstructive pulmonary disease (COPD, 9%), hypertension (8%), heart disease (7%), asthma (7%), cancer (6%) and depression (6%) (Fig. 1). Additionally, the two most common co-occurring chronic diseases for which care was impacted by COVID-19 were diabetes and hypertension (30%), diabetes and COPD (13%), heart failure and COPD (8%) (Fig. 1).

Whilst the overall management of chronic disease care for patients was reported to be fair (48%) or good (26%), most HCPs (67%) rated moderate or severe effects on their patients due to changes in healthcare services since the outbreak. Moreover, 80% reported the mental health of their patients worsened during COVID-19 (Table 1).

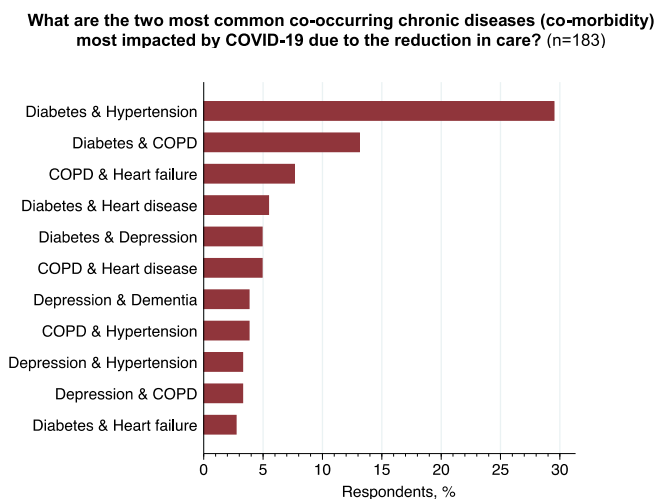
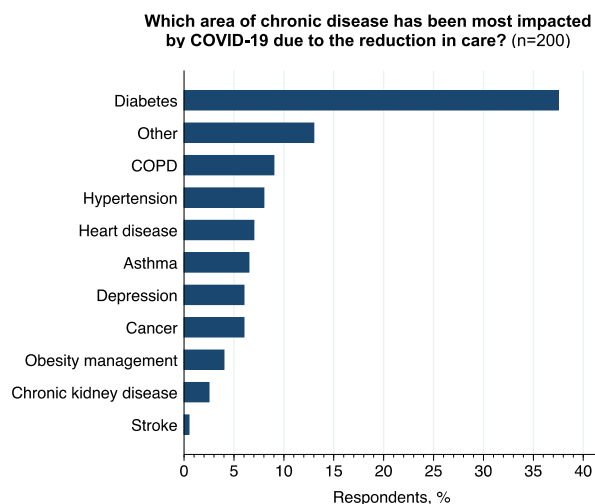
Findings from this global survey showed HCPs have adapted to new ways of delivering care using telemedicine in order to reduce face-to-face contacts. Adapting new ways of virtual healthcare and digital technologies is imperative to allow HCPs to continue routine appointments. Further, the use of apps can support self-management of chronic conditions, i.e. continuous glucose monitoring enables support with diabetes. However, the majority of people with non-communicable diseases live in low-middle income countries, where

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Table 1
Responses from healthcare professionals who completed the online survey between March 31 and April 23, 2020.

Survey questions	No. (%)
Healthcare profession (n = 202)	
Primary care physician	75 (37.1)
Hospital physician	40 (19.8)
Nurse	46 (22.8)
Other	41 (20.3)
How are you continuing to provide routine chronic disease management care for your patients? (n = 202)	
Face-to-face	29 (14.4)
Telephone	90 (44.6)
Both (face-to-face and telephone)	70 (34.7)
Other	13 (6.4)
How has the management of chronic disease care for your patients been since the outbreak of COVID-19? (n = 202)	
Very poor	9 (4.5)
Poor	39 (19.3)
Fair	96 (47.5)
Good	52 (25.7)
Excellent	6 (3.0)
What effect do you think changes in healthcare services has had on your patients with chronic disease since the outbreak of COVID-19? (n = 200)	
No effect	5 (2.5)
Mild effect	61 (30.5)
Moderate effect	92 (46.0)
Severe effect	42 (21.0)
How frequently have your patients been impacted by medication shortages since the start of COVID-19? (n = 201)	
Never	32 (15.9)
Rarely	37 (18.4)
Sometimes	96 (47.8)
Often	35 (17.4)
Always	1 (0.5)
Has the mental health of your patients worsened since the outbreak of COVID-19? (n = 200)	
Yes (most patients)	41 (20.5)
Yes (some patients)	118 (59.0)
No, it has stayed the same	36 (18.0)
No, it has improved	5 (2.5)



COPD=chronic obstructive pulmonary disorder. Combinations with more than five responses were presented for the two most common co-occurring chronic diseases.

Fig. 1. Chronic disease and comorbidities most impacted by COVID-19 due to the reduction in care, based on responses by healthcare professionals who completed the online survey between March 31 and April 23, 2020

these technologies may not be widely available or practical [1]. Moreover, those with multiple chronic conditions may rely heavily on regular check-ups or hospital appointments to manage risk factors, are left trying to adapt to non-face-to-face interactions, or experiencing delay in treatment which may potentially have severe consequences.

Limitations of this survey include that it was only disseminated in English, as part of our networks we may have preferentially approached those working in diabetes. Also, difficulty in obtaining responses from HCPs when workloads may have already increased considerably. There will be heterogeneity between countries in that some countries are currently not as affected by the virus compared to others, and regulations of lockdown and social distancing differ by country, thus further research is required.

To avoid a rise in non-COVID-19-related morbidity and mortality, including increased depression and anxiety, it is important that patients with chronic diseases continue to receive care in spite of the pandemic [2]. Our study found that this is currently being done through face-to-face consultation in clinics (away from COVID-19 patients) or through virtual communication.

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Ethical approval and informed consent

All participants gave informed consent at the start of the survey

and no confidential data was collected, as all responses remained completely anonymous. This study has been approved by the University of Leicester College of Life Sciences Committee for Research Ethics Concerning Human Subjects (Non-NHS).

Declaration of competing interest

The authors have no conflict of interest to declare.

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