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Commentary

Management of chronic cardiometabolic conditions and mental health during COVID-19

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A novel coronavirus disease (COVID-19) originated in Wuhan, China December 2019 and quickly became a global pandemic. The elderly and those with underlying health conditions may show more severe manifestations and poorer outcomes associated with COVID-19. The most prevalent underlying diseases in patients hospitalised with COVID-19 include hypertension, cardiovascular disease, diabetes mellitus, and chronic obstructive pulmonary disease [1]. Comorbidities are often also associated with depression, which can worsen outcomes [2]. Early detection is vital, and it is important that those with underlying health conditions have access to appropriate health care support at home, particularly in light of the concerns of the impact of social isolation relating to the COVID-19 pandemic on mental health and well-being.

Data in the UK indicate that the most common multimorbidities in people are cardiometabolic conditions [2], known to be associated with higher risk of depression, and a significantly reduced life expectancy. In a recent meta-analysis, a 47.9% increase in cardiovascular mortality, 36.8% increase in coronary heart disease and 32.9% increase in stroke was found in people with diabetes and comorbid depression [3]. It is therefore important to prevent or delay such complications, by ensuring that relevant risk factors are identified and treated during this pandemic as well as support for management of patients' mental health.

Many of the comorbidities associated with COVID-19 (such as diabetes and depression), may be exacerbated by increased stress and changes to diet and physical activity due to social distancing and self-isolation, and delay in scheduled physician and laboratory check-ups. This can result in poor adherence to medical treatment, poor glycaemic control in diabetes, and higher rates of mortality [4]. There are concerns about a possible association between ethnicity and adverse outcomes associated with COVID-19. This may be caused by a range of socioeconomic, cultural, and lifestyle factors, and higher prevalence of underlying health conditions in particular diabetes, cardiovascular risk factors and poorer mental health [5].

Disruption to health care and limited health care resources may impact patients with long term conditions, particularly those with cardiovascular disease, diabetes, the elderly, and those from economically deprived areas [6]. When normal health care services are disrupted, patients with complex, chronic medical conditions are at an increased risk of morbidity and mortality and there is already evidence of significantly reduced access and use of routine medical care in the first few months of the COVID-19 pandemic [7].

1. Effective chronic disease management during the pandemic

Effective chronic disease management and continuity of care is vital to manage these health conditions. Such care is likely to have impact on patient outcomes if they acquire the coronavirus infection. It is vital that health care systems, while protecting the public from the risk of infection, are also able to provide effective chronic disease management for patients. This requires careful planning and the adoption of new ways of working.

Regular contact with primary care is important, to ensure that comorbidities are actively managed and risk factors are controlled, and to improve adherence to medical treatments. New models of care necessitated by COVID and infection control measures mean that remote consultations (online, telephone or video) have replaced face-to-face consultations with primary health care professionals (Fig. 1).

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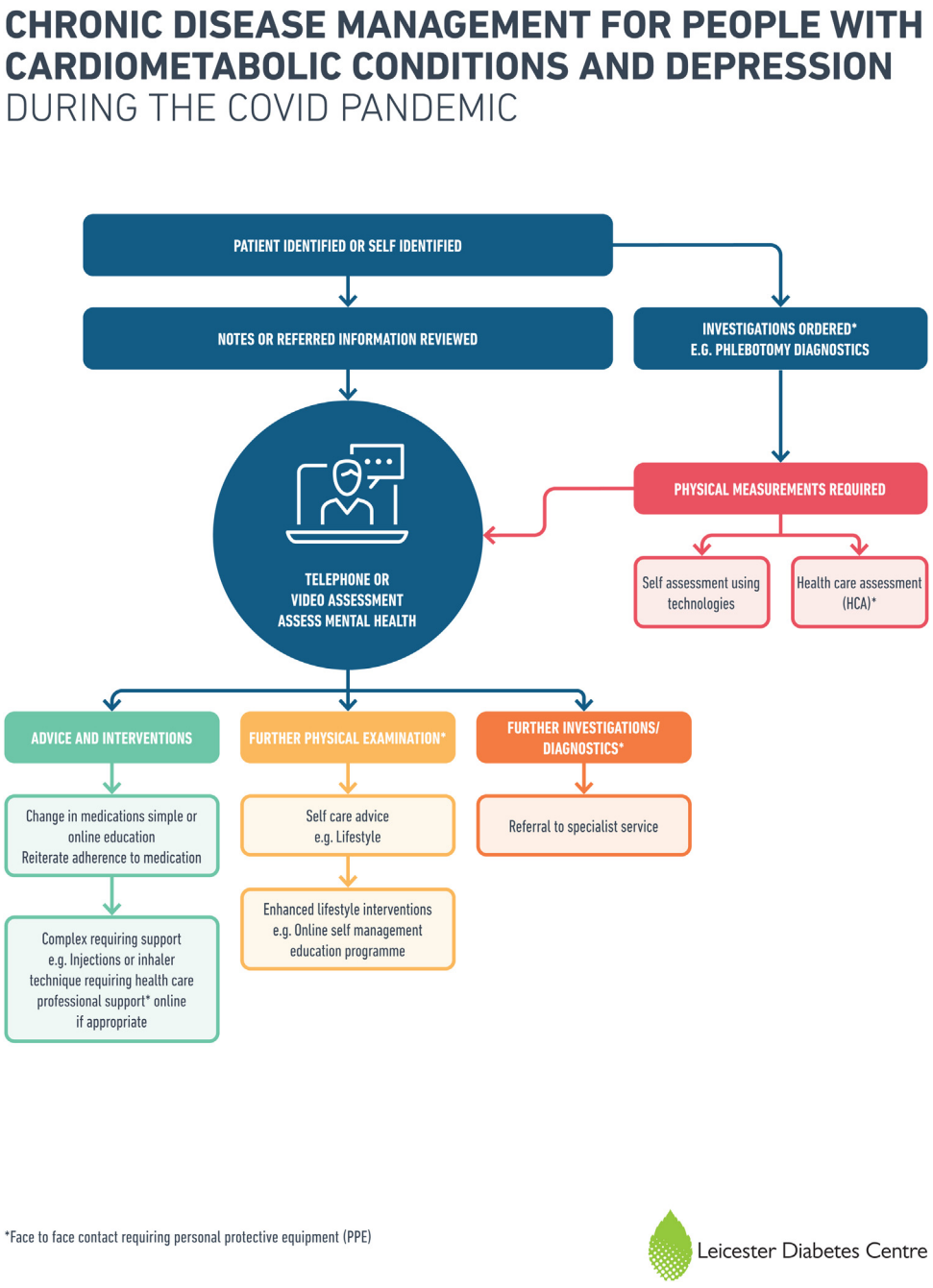

Fig. 1. Chronic disease management for people with cardiometabolic conditions and depression during the COVID-19 pandemic.

Video consulting may offer therapeutic presence where people tend to communicate in a similar way to a face-to-face consultation [8]. The lack of physical examination is a major potential drawback of remote consultations, however it may be possible that patients can self-monitor with equipment at home, such as to measure blood pressure, blood glucose monitoring and weight or urine dipstick analysis for diabetes. With adequate resolution video or photography can offer clinicians the ability to check changes in the feet or skin conditions. However, availability of suitable or standardised devices and knowledge about the techniques may be the potential challenges. The access to laboratory services for routine monitoring is also disrupted during the pandemic. Thus, alternate options of laboratory sample collection and testing may also be considered.

Exposure to the pandemic has major implications for mental health, due to personal losses, illness, financial hardship and employment uncertainty. This may lead to psychological distress, Post-Traumatic Stress Disorder and exacerbation of existing psychiatric disorders [9]. A systematic framework for assessing mental health impact on patients with chronic disease should be integrated into consultations, which take account of the potential impact of COVID-19 [10]. Further research is required on how effective remote consultations are in identifying and addressing the medical management and mental health problems in patients with chronic disease, compared to face-to-face consultations.

2. Enhanced self-care

Online patient education programmes aim to provide people with knowledge and skills to make positive lifestyle changes and can work alongside remote consultations in supporting

patient care. Promising strategies for self-management and self-education for diabetes include text message interventions and self-monitoring of blood glucose (Hartmann-Boyce et al., 2020). These include self-guided, educational treatments delivered online, using effective behaviour change techniques (BCT's). Human-supported web-based interventions may be as effective as face-to-face therapies, both for mental health and lifestyle counselling [11] particularly those that set personalised goals for clients, and use emails or SMS to provide reminders to clients to regularly use the programmes to improve compliance [12].

Further exploration of the effectiveness of the new ways of working is warranted in light of the current pandemic. Key issues to determine include whether remote interventions are cost-effective compared to face-to-face care, result in greater patient satisfaction or have any differential impact on outcomes. Particular groups, for example people who do not speak English or who do not have access to, or struggle with using IT, may be disadvantaged with the new ways of working. Appropriate solutions need to be identified for such groups [13].

It is essential to ensure chronic diseases such as diabetes and associated risk factors including mental health are managed proactively during the COVID-19 pandemic. If this is not done it is possible that the impact of chronic disease complications may prove to have a greater negative and longer lasting impact on health outcomes than COVID-19 infection itself.

It is important for health services to prioritise the effective management of chronic disease during the pandemic and in the pandemic recovery stages, including the optimal use of new ways of working such as remote consultations and monitoring.

Conflicts of interest

Nothing declared.

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