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plasticity and learning, and it will therefore be important to do long-term monitoring of patients to see if there are unanticipated deleterious effects related to the loss of the physiological function of α -synuclein.

AJS receives honoraria as chair of the data safety monitoring board for a trial (Voyager; Neurocrine Biosciences) of AADC gene therapy for Parkinson's disease and has received a speaker honorarium from AbbVie. He is paid a stipend as Editor-in-Chief of the journal *Movement Disorders*.

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Health care for chronic neurological patients after COVID-19

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See [Personal View](#) page 623

The ongoing spread of the coronavirus disease 2019 (COVID-19) pandemic is providing an opportunity to reassess and reconsider priorities in health-care systems.¹

In the past two decades, high-income countries have developed the perception that we need to partly shift resources to chronic conditions and limit the number of hospital beds to admit only medical emergencies. This notion was based on the need to contain health-care spending and to care for an increasingly large ageing population, with chronic conditions becoming more common, particularly in neurology. The idea of making health care more efficient has resulted in a management shift toward short hospitalisation, early discharge, and substantial cuts to expensive intensive care units. Many neurology clinics have substantially reduced their number of hospital beds and neurologists often prioritise consultation in busy outpatient clinics. In some countries, including the UK, it has been cheaper for national health services to hire specialised nurses rather than train more physicians.

The COVID-19 pandemic—because of which hundreds of individuals are presenting to hospital within a short timeframe with respiratory distress and diffuse coagulopathy—is likely to put this practice to an end for at least a few years.² In regions such as Lombardy (Italy), London (UK), and New York City (USA) that have ultra-specialised units but low numbers of primary

care physicians, acute and intensive care beds per 100 000 inhabitants have reported very high mortality rates due to the inability to deal with the emergency. Coping with pandemics and humanitarian emergencies requires health-care systems to find a reasonable balance between acute and chronic care.

In *The Lancet Neurology*, Bastiaan Bloem and colleagues³ provide their view on how management of chronic neurological patients should be organised. The Personal View was written before COVID-19, but is still extremely relevant and timely in light of what has happened in these past weeks. Their starting view is that, in our health systems, care is mainly reactive and focused on tackling problems when they arise, instead of taking a proactive approach to prevention, with poor interdisciplinary collaboration and lack of timely access to services and therapies. The authors apply this concern over reactive care to Parkinson's disease and other chronic neurological disorders—but it could be also applied to the ongoing COVID-19 pandemic. Although there are some exceptions, the response implemented by politicians and medical experts to COVID-19 has generally been confusing and uncoordinated.

Bloem and colleagues' proposal is to develop integrated care and to implement a home-hub-and-spoke model for Parkinson's disease care services, which could be extended to other chronic neurological diseases.⁴ They pledge for

increased focus on nurses based in community hospitals who act as personal care managers and deliver services remotely, possibly coordinating telemedicine activities. In this model, dedicated educational programmes should be provided to patients and caregivers. For Parkinson's disease care, this model is particularly relevant as nutrition, physical activities, and issues regarding medication and advanced therapies can be addressed remotely.⁵ Indeed, during the current pandemic many institutions have switched to remote consultations to minimise the risk of infections to patients.⁶

There are challenges to this view. In many countries this approach can only be considered if family doctors are integrated into the system and trained to offer first-level consultation, possibly interacting with nurse case managers at tertiary centres. Replicability of this health-care model is also a concern considering the important differences in medical services that exist within Europe and globally. The example of the network based health-care model in the Netherlands, ParkinsonNet, would need substantial adaptations, particularly in countries with national health services and only marginal availability of private insurance in the population (such as Italy and the UK).⁷ In the USA, a large proportion of the population does not have medical coverage so the reported successful case study of Kaiser Permanente insurance in California might offer only a partial perspective on how well patients with Parkinson's disease on low incomes are managed in the country.⁸

We need to consider that in most European countries there is a shortage of doctors and nurses because health-care jobs have lost attractiveness. These roles are underpaid, stressful, and increasingly focused on administrative tasks rather than medical issues in hospitals.

In conclusion, the Personal View from Bloem and colleagues provides several important considerations that will require a thorough discussion after this acute

phase. The definition of multidisciplinary teams to plan care for patients with Parkinson's diseases (and other chronic conditions) seems a very reasonable approach, although currently restricted to specific health systems, such as those in middle-income or high-income countries or national insurance-based health-care systems. The development of telemedicine offers an incredible opportunity for remote monitoring and implementation of technology-based objective measures.⁹ However, the acceptability to patients, caregivers, and clinicians of digital health platforms needs to be further assessed, possibly with dedicated trials focused on improvement in quality of life and therapeutic management.¹⁰

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