



Call for action: Health services in the European region must adopt integrated care models to manage Post-Covid-19 Condition

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The COVID-19 pandemic has affected more than 216 million individuals in the European Region with more than 1.9 million deaths.¹ Most countries have mobilised their resources to manage the waves of hospital admissions and intensive care cases and to prioritise the vaccination effort to protect as many people as possible against severe cases of COVID-19. The emergency response has had a major economic, health and social impact across societies in most of the countries of the European region. While the pandemic is far from over, the pressure on health systems is multiple: Not only do they have to treat the current COVID-19 cases, but also maintain and restore all other essential health services that have often been disrupted throughout the pandemic response, leading to substantial backlogs in many countries.² Also, they need to provide for the persons suffering with persistent disabling symptoms of COVID-19, referred to as Post-Covid-19 Condition or “Long Covid”.³ The exact number of people affected is not clear, but published evidence indicates that approximately 10–20% of individuals with COVID-19 experience continued symptoms for weeks, months and even up to two years following acute SARS-CoV-2 infection.^{3,4} This means that there are currently millions of individuals in the European region, struggling with this new condition affecting their function, vocation and quality of life.

Post-Covid-19 Condition can present with an array of symptoms (more than 200 reported in the literature so far), common symptoms being breathlessness, fatigue, pain, psychological symptoms and cognitive dysfunction, including brain fog.⁵ Studies in those recovering from hospital admission due to COVID-19 have shown higher risks of respiratory, cardiovascular disease (heart failure, myocardial infarction, stroke), diabetes, renal, neurological and liver disease when compared to matched controls.⁴ Similar multisystem effects have

also been observed in non-hospitalised COVID-19 patients.⁶ Children may also suffer from Post Covid-19 Condition, for which the first research definition has only recently been agreed.⁷

As Post-Covid-19 Condition is now getting recognised as a new long-term condition, it is clear that health systems worldwide will be facing a significant pressure on the services they provide for patients with this condition, including their morbidity and the health-care costs to manage these individuals optimally.⁸ Traditionally, health services in most countries have operated largely on a single organ system model (such as Cardiology or Gastroenterology) providing highly specialist care at a single point of access to the service. There are some notable exceptions in elderly care, pain, rehabilitation and cancer services, where there is cross-specialty and interdisciplinary working. Standalone super-specialty driven care models will struggle to manage Post-Covid-19 Condition comprehensively and effectively. There is a risk to patient safety that arises from inappropriately lengthy or unidisciplinary traditional pathways that do not have the skill mix to manage this complex and multisystem condition.

Instead, the requirement in Post-Covid-19 Condition care is a multi-specialty integrated service model that can undertake prompt baseline investigations, rule out life-threatening complications and provide individualised care using condition-specific outcome measures.⁹ Post-Covid-19 Condition patients can present with symptoms of different degrees of severity, some of which may be cared for by primary and community care services, and some that would need urgent assessment by specialists such as Cardiologists and Respiratory Medicine within such an integrated service. Rehabilitation professionals within such a care model provide the holistic long-term care aimed at improving functional ability and quality of life. As Post-Covid-19 Condition is a new condition, research needs to be an integral part of the service.⁴ Furthermore, there will be an ongoing importance of quantifying Post-COVID-19 condition, as new variants arise, vaccinated individuals get infected or unvaccinated ones get reinfected – as to whether the

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influx of new cases are becoming larger or smaller – despite the condition being long-term.

WHO Rehabilitation 2030 brought attention to the unmet global need for rehabilitation, making it essential for universal health coverage.¹⁰ Rehabilitation policy frameworks and tools are available to support the strengthening of health systems to provide rehabilitation.

With the emergence of Post-Covid-19 Condition there is now a further increase in the overall rehabilitation needs within health systems.

Success in this pandemic is not only developing new diagnostics, treatments and vaccinations to prevent hospitalisations and deaths, but also ensuring provision of accessible, affordable and individualised long-term rehabilitative care, thereby reducing disease burden and restoring best quality of life for the affected population.

In a call for action, the recommendation is to:

- Build capacity for early identification and recognition of symptoms of Post-Covid-19 Condition.
- Strengthen primary health care to manage Post-Covid-19 Condition when medically indicated, and to be the point of referral for more severe cases.
- Acknowledge the need for individualized long-term rehabilitative care for persons with Post-Covid-19 Condition.
- Strengthen the health system to be able to provide an individualised multidisciplinary care pathway in which patient's multi-system symptoms and rehabilitation needs are assessed and managed, informed by real world outcome data and patient experience.¹⁰

Contributors

H.H.P.K. supervised and validated. N.A.M. conceptualized, supervised and validated. S.M., conceptualized, reviewed and edited. S.N., F.T., D.P. and L.C.E. wrote,

reviewed and edited manuscript. M.S. conceptualized and wrote original draft of manuscript.

Declaration of interests

The authors have none to declare.

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