

# Physical Activity is an Essential Discharge Prescription for Patients with Non-Communicable Diseases

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## Dear Editor,

The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) showed that over the past decade, the global disability-adjusted life years (DALYs) had increased mainly due to population aging and the associated increase in the incidence of non-communicable diseases (NCDs).<sup>1</sup> In 2021, NCDs caused two-thirds of all-cause mortality, with cardiovascular disease, cancer, chronic respiratory disease, and diabetes accounting for more than 80% of NCD mortality.<sup>2</sup> Thus, NCDs should be prioritized from a public health perspective, with an ambitious Sustainable Development Goal (SDG) of a reduction in NCDs by one-third from 2015 to 2030. Unfortunately, the likelihood of achieving this target appears slim.<sup>2</sup>

The World Health Organization has also produced physical activity guidelines and set a target of a 15% relative reduction in insufficient physical activity between 2010 and 2030.<sup>3</sup> Based on a pooled analysis of 507 population-based surveys, the prevalence of insufficient physical activity increased from 26.4% in 2010 to 31.3% in 2022.<sup>4</sup> Again, it seems unlikely that the global target for physical activity will be met, unless there is an effective concerted multi-sectoral effort put in place.

Patients admitted to the hospital with acute illness may have NCDs that require optimization in the hospital. Hospitalists contribute to the management of NCDs mainly by adjusting medication doses. However, another important component of secondary prevention includes non-pharmacological interventions and lifestyle advice, such as physical activity. For inpatients, especially those with NCDs, prescribing physical activity can be initiated while in the hospital, continued as a discharge prescription, and reviewed at follow-up appointments as part of their treatment package. A discharge prescription is defined as a structured, individualized exercise plan documented

in the discharge summary. This may include written instructions for home-based activities, referral to supervised physiotherapy or community programs, and optional digital tracking via apps or wearables. The prescription should specify the recommended type and intensity of activity, along with a follow-up mechanism to review adherence and adjust goals for progression at subsequent clinic visits.

Clinicians may be apprehensive about prescribing physical activity, particularly for older people with cardiac comorbidities. However, cardiac patients who benefit from resistance training and aerobic exercise require cardiac rehabilitation and have a low risk of cardiovascular complications within controlled settings.<sup>5</sup> A survey of older people found that the main barriers to exercise include perceived physical limitations or old age, lack of guidance and inadequate information.<sup>6</sup> Thus, the patient review is an opportunity to evaluate for actual health contraindications to physical activity, reassure patients regarding risk, educate them regarding the benefits of exercise, and how to implement, maintain, and progress their physical abilities. Individualizing exercise program goals and identifying social influences or support to motivate perseverance with exercise are also important for adherence.<sup>7</sup>

Despite these benefits, system-level barriers may limit implementation, such as time constraints during consultations, lack of standardized protocols for exercise prescription, limited access to physiotherapy or rehabilitation services, and inequities in low-resource settings. Overcoming these barriers requires institutional commitment, integration of physical activity into electronic medical records or discharge systems, and capacity building or training in exercise prescription.

Overall, the trends of increasing NCD burden and physical inactivity are concerning. For patients admitted

to the hospital, physical activity should be an essential discharge prescription for patients with NCDs.

#### Conflict of Interest Disclosures

The authors declare no conflict of interest..

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