

Digital prehabilitation—a solution to resource shortages?

Chantal M den Bakker and colleagues must be congratulated for their Article on their digitised rehabilitation trial.¹ They showed that a digitised online rehabilitation programme with trackers, a digital consultation platform, and patient-reported outcomes results in a significantly faster time until return to normal activities after major surgery. One aspect that was not shown was the exercising data of individual participants, and compliance was defined as “at least generated a convalescence plan on the website”. We are curious about how many participants delivered sufficient tracking data and about how many participants missed or cancelled sessions—revealing low adherence and compliance.^{2,3}

As a research group, we work on digitised prehabilitation and strongly believe in the effects of digitised programmes.⁴ Resource-consuming and time-consuming in-house processes might benefit from digitised prehabilitation without impairing patient safety for several reasons (as detected in 15 peer interviews with doctors and executive managers in 2021; appendix 1). There is a discrepancy between the typical infrastructure in most hospitals and a funded clinical trial. Millions of health-care workers have left the health-care system globally, with no recognisable reversion of this trend in sight.⁵ Approved medical devices that make use of standardised datasets and programmes might deliver better results in (and adherence to) prehabilitation than resource-consuming in-house processes. Patients are willing to travel for rehabilitation, but are unlikely to be able to travel repeatedly for 4 weeks before a surgical procedure

in most countries, regardless of their motivation to improve their fitness before surgery.

A survey of 102 doctors or managers and 37 patients conducted between March and December, 2021, in Germany and Slovenia (appendix 2) revealed a high willingness to perform structured, digitised prehabilitation (88.2% and 86.4% willingness, respectively), with participants favouring usability (95.1% and 82.8%, respectively), data safety and protection (80.4% and 77.1%, respectively), and patient safety (65.7% and 68.6%, respectively) as key success features. Doctors liked the idea of a tool for risk-adjusted surgical quality measurement, which was also a driving motivation for executive managers, as they could reduce costs and saw patient empowerment as an opportunity.

In conclusion, digitised solutions might be suitable to reduce resource burdens in rehabilitation and prehabilitation. Individuals want to be well prepared for surgery, to recover optimally, and to be treated safely. Therefore, digitised rehabilitation and prehabilitation have a high chance (with growing evidence) of offering a new and effective instrument for patient safety and quality results.

AAS is a board member in the workforce for perioperative medicine in surgery of the German Association for General and Visceral Surgery; AAS and DZ are founders of Capreolos GmbH, which is a spin-off of the Goethe University Frankfurt to develop a medical device in digital prehabilitation; both AAS and DZ are responsible for the preparation and submission of patents for The Prehab App. JF is a shareholder at Capreolos GmbH.

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See Online for appendix 2

See Online for appendix 1