ESC European Journal of Preventive Cardiology (2026) **33**, 807–808
https://doi.org/10.1093/eurjpc/zwag031

Cardiac telerehabilitation: time for implementation

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Received 11 December 2025; revised 29 December 2025; accepted 6 January 2026

This publication focuses on the recent *European Heart Journal* statement on cardiac telerehabilitation. In this interview, *Martijn Scherrenberg* is interviewed by *Paul Dendale* to discuss the rationale behind the recent scientific statement,[1] its key messages, and the implications for clinical practice, policy, and future research. Together, they explore how cardiac telerehabilitation can improve access, quality, and effectiveness of secondary prevention for cardiovascular patients across Europe.

Q: Can you start by explaining the purpose of this publication and what motivated its creation?

A: The 2025 European Heart Journal statement on cardiac telerehabilitation[1] was developed to address its potential but also highlight the need for standardization, quality indicators, and more robust evidence. It is clear that cardiac telerehabilitation could play an important role: comprehensive, multidisciplinary cardiac rehabilitation improves survival, reduces hospital readmissions, and enhances quality of life; however, only about 30–40% of eligible patients in Europe actually participate.[2–4] Barriers like transportation difficulties, scheduling conflicts, and personal circumstances often prevent patients from accessing center-based programs. The authors, representing the European Association of Preventive Cardiology, ACNAP, and the ESC Working Group on e-Cardiology, recognized that telerehabilitation offers a solution to these challenges.

Q: How does this publication compare with existing literature or alternative approaches?

A: Multiple studies show that home-based and telehealth interventions can improve exercise capacity, adherence, and psychosocial outcomes,[3,4] but program design and quality have varied widely. Until now, no unified framework clearly defined what constitutes high-quality cardiac telerehabilitation. The European statement helps fill this gap, and a recent American consensus document[5] on virtual and remote delivery of cardiac and pulmonary rehabilitation similarly emphasizes preserving all core components and ensuring consistent safety and quality across models. Together, these efforts highlight growing international alignment toward structured, evidence-based telerehabilitation.

Q: What are the key messages clinicians and policymakers should take from this statement?

A: First, cardiac telerehabilitation is a legitimate alternative or complement to center-based cardiac rehabilitation, offering patients flexibility and improving access for those who would otherwise face barriers. Second, telerehabilitation programs should aim to deliver all core components of comprehensive phase-2 cardiac rehabilitation remotely—or through hybrid models—including exercise training, risk-factor management, education, and psychosocial support.[6] Third, technical infrastructure and data security are essential; secure data handling, reliable telemonitoring, and trained personnel are crucial for patient safety.[7] Finally, cardiac telerehabilitation has the potential to increase participation rates, improve equity in access, and strengthen secondary prevention efforts.

Q: What challenges might arise when implementing these standards in practice?

A: There are several. Patients vary in terms of comorbidities, digital literacy, home environment, and access to technology.[8] A one-size-fits-all approach may not meet the needs of all patients. Infrastructure and data security are other key challenges—some centers may lack reliable telemonitoring tools or trained staff, which can compromise safety and quality. Adherence and engagement can also be difficult to maintain without face-to-face supervision. Additionally, without strict adherence to standards, program quality can vary, resulting in inconsistent outcomes.

Q: How can these challenges be addressed?

A: The statement highlights hybrid models as an effective approach, combining remote care with periodic in-person sessions to tailor programs to individual needs. Investing in robust technical infrastructure, secure data handling systems, and staff

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training is essential. Structured patient education, remote coaching, and regular follow-up help maintain engagement and ensure correct exercise execution. Finally, incorporating quality control and accreditation processes encourages centers to adhere to the recommended standards, creating consistent, high-quality care across programs.

Q: Are there any issues the statement does not fully address?

A: Yes, several important issues remain. Long-term effectiveness and durability of telerehabilitation require further study, as most trials are relatively short and involve small sample sizes. Applicability to diverse populations—such as those with complex comorbidities, low digital literacy, or socio-economic barriers—remains partially unaddressed. Digital divides and regional disparities in infrastructure could limit equitable access. Additionally, variability in healthcare systems, funding, and regulatory frameworks across Europe may complicate uniform implementation. Finally, questions of reimbursement, legal frameworks, and sustainability remain to be resolved to ensure broad adoption.[9]

Q: What are the implications of this publication for policy, industry, and research?

A: For healthcare providers and institutions, the statement provides a blueprint for implementing high-quality cardiac telerehabilitation, supporting program design, patient care, and accreditation. Policymakers and payers can use these standards to promote equitable access to secondary prevention programs, potentially improving population-level outcomes and optimizing resources. The digital health and medical technology industry is encouraged to develop secure, user-friendly telemonitoring platforms that align with the standards. Researchers are prompted to explore long-term outcomes, real-world effectiveness, hybrid models, equity issues, and cost-effectiveness, as well as focus on implementation science.

Q: Looking forward, what emerging developments should we watch for in cardiac telerehabilitation?

A: Hybrid models are gaining attention, offering a balance between remote flexibility and in-person supervision. Advances in wearable sensors, telemonitoring platforms, and secure digital health technologies are enhancing safety and scalability. There is growing interest in expanding cardiac telerehabilitation to broader patient populations, including those with heart failure, post-surgery patients, older adults, and underserved groups.[10] AI is also poised to accelerate progress by enabling personalised exercise prescriptions, early risk detection from remote monitoring data, automated workflow support for clinicians, and more engaging, adaptive patient-facing tools.

Author contributions

Martijn Scherrenberg (Writing—original draft [lead], Writing—review & editing [lead]) and Paul Dendale (Writing—original draft [supporting], Writing—review & editing [supporting])

Conflict of interest: none declared.

Data availability

No new data were generated or analysed in support of this research.

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