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Alternative models of cardiac rehabilitation delivery urgently needed to improve access for heart failure patients.

Short title: Alternative models of rehabilitation delivery needed

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We read with interest the study, “Temporal trends and factors associated with cardiac rehabilitation utilization among Medicare beneficiaries with heart failure with reduced ejection fraction”.¹ Pandey et al show that only 2.2%-4.3% of patients with HF participated in CR within 6-months of discharge from hospital or outpatient visit. In this letter, we share recent European experience that underscore the importance of these findings.

The National Health Service (NHS) in England have set the ambitious target of increasing CR participation for HF from <10% to 33% by 2023.² However, a two-third decrease in HF patient CR attendance in UK has been seen in the 6-month periods from August 2019 to January 2020 (‘pre-COVID’) of 3,612 (6.8%) to 1,935 (5.4%, February-July 2020 (‘post-COVID’).³ With national public measures of lock down, there was a increase in the proportion of patients enrolling to home-based CR programmes (22.2% to 72.4%) in this same period. We are working with NHS providers to roll out the home-based REACH-HF programme to enhance access for HF patients.⁴

We recently undertook an analysis of all patients in Denmark with incident HF (33,257) from 2010 to 2018.⁵ Although, focused on referral (≤120 days of hospital admission) rather than CR participation, it still shows the problem of CR access in that only one in two HF patients in Denmark are referred to CR. Subgroups of HF patients found to be with highest risk of poor access were those who were older age, unemployed/retired, living alone, non-Danish, of lower education, and multimorbid.

In close, despite robust evidence of benefit, global participation in CR for HF remains stubbornly low. The challenge of COVID-19 pandemic offer us a unique opportunity to ‘fast-track’ the development/implementation of home-based CR to improve CR access for people with HF and their families.

References

1. Temporal Trends and Factors Associated with Cardiac Rehabilitation Utilization among Medicare Beneficiaries with Heart Failure with Reduced Ejection Fraction. Pandey A, Keshvani N, Zhong L, Mentz M, Piña IL, DeVore AD, Yancy C, Kitzman DW, Fonarow GC. *JACC HF*. 2021 (reference details to be added)
2. UK Department of Health, Cardiovascular Disease Outcomes Strategy, 5th March 2013
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/217118/9387-2900853-CVD-Outcomes_web1.pdf
3. National Audit of Cardiac Rehabilitation (NACR) *Quality and Outcomes Report 2020*.
<https://www.bhf.org.uk/information-support/publications/statistics/national-audit-of-cardiac-rehabilitation-quality-and-outcomes-report-2020>

4. Dalal HM, Taylor RS, Wingham J, Greaves CJ, Jolly K, Lang CC, Davis RC, Smith KM, Doherty PJ, Miles J, van Lingen R, Warren FC, Sadler S, Abraham C, Britten N, Frost J, Hillsdon M, Singh S, Hayward C, Eyre V, Paul K. A facilitated home-based cardiac rehabilitation intervention for people with heart failure and their caregivers: a research programme including the REACH-HF RCT. Southampton (UK): *NIHR Journals Library*; 2021 Feb. PMID: 33617178.
5. Thygesen LC, Zinckernagel L, Dalal H, Egstrup K, Glümer C, Grønbæk M, Holmberg T, Køber L, la Cour K, Nakano A, Nielsen CV, Sibilitz KL, Tolstrup JS, Zwisler AD, Taylor RS. *Cardiac rehabilitation: Nationwide study of predictors of referral and outcomes*. Abstract submitted to 24th Rehabilitation World Congress, Sept 7th-9th 2021, Aarhus, Denmark.