A prospective, observational multicenter registry of heart failure patients in Germany: preliminary results of the ongoing H2-registry

J. Leiner1, S. Koenig1, A. Nitsche2, K. Mouratis2, M. Seyfarth3, H. Baberg4, A. Schade5, H. Neuser5, A. Staudt7, J. Tebbenjohanns8, R. Andrie9, M. Niehaus10, M.W. Ferrari11, R. Kuhlen12, A. Bollmann1

1Heart Center Leipzig at University of Leipzig, Department of Electrophysiology, Leipzig, Germany
2Helios Health Institute, Real World Evidence and Health Technology Assessment, Berlin, Germany
3University Hospital Wuppertal at University of Witten/Herdecke, Department of Cardiology, Wuppertal, Germany
4Helios Clinic Berlin-Buch, Department of Cardiology and Nephrology, Berlin, Germany
5HELIOS Clinic Erfurt, Department of Electrophysiology, Erfurt, Germany
6Helios Vogtland Clinic Plauen, Department of Cardiology and Angiology, Plauen, Germany
7Helios Clinics Schwerin, Department of Cardiology and Angiology, Schwerin, Germany
8Helios Clinic Hildesheim, Department of Cardiology, Angiology and Electrophysiology, Hildesheim, Germany
9HELIOS Clinic Siegburg Hospital & Heart Centre, Department of Electrophysiology, Siegburg, Germany
10Helios Clinic Gifhorn, Department of Cardiology, Gifhorn, Germany
11Helios Dr Horst Schmidt Clinic, Clinic for Internal Medicine I, Wiesbaden, Germany
12Helios Health GmbH, Berlin, Germany

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Background: Heart failure (HF) is a highly prevalent condition affecting 1-2% of the adult population in Europe. Despite pioneering improvements in HF treatment during the last two decades, hospitalization and mortality rates remain relatively high. Gathering real-world data on HF populations is crucial especially in the light of newly emerging therapeutic approaches.

Purpose: The H2-registry was set up in 2021 to provide up-to-date, real-world data on a contemporary cohort of hospitalized HF patients in Germany using a standardized set of outcome measures.

Methods: The ongoing H2-registry represents a prospective, investigator-initiated, multicenter observational registry. Inpatients ≥18 years of age with a present diagnosis of chronic or acute HF are recruited in secondary and tertiary hospitals throughout Germany. Patients are excluded if they present in any kind of shock during index hospitalization, or if they previously underwent heart transplantation or ventricular assist device therapy. Routine follow-up (FU) is conducted every 6 months. A standardized set of variables according to the International Consortium of Health Outcome Measurements (ICHOM) including a pre-defined selection of questionnaires to collect patient-reported outcome measures (PROMs) is used to objectively monitor the course of disease.

Results: Until the reference date 12/31/22, a total of 2,190 patients were included in ten active study centers. Mean age was 72 years, 36.8% were female, and mean left-ventricular ejection fraction (LVEF) was 43.4% (38.1% had an LVEF of ≤40%). In-hospital mortality at index case was 1.3%. Within the cohort with completed 6-month FU comprising of 976 patients, all-cause mortality was 11.3% (110). In addition, 24.2% (209) in the survival cohort had at least one HF-related re-hospitalization. Numbers for all-cause mortality and re-hospitalizations at 12-month FU were 21.3% (71) and 32.8% (86), respectively. Evaluations of Kansas City Cardiomyopathy Questionnaire (KCCQ-12) scores showed a significant improvement overall and in all sub-categories (p < 0.001) at 6- and 12-month FU.

Conclusions: The H2-registry currently represents the largest ongoing prospective registry of HF inpatients in Germany. Our preliminary data highlights the pronounced mortality risk and healthcare burden in this cohort. However, HF-related therapies initiated during the course of a hospitalization have the potential to significantly improve patients’ quality of life. In the near future, it is foreseeable that the actively recruiting H2-registry based on ICHOM-standards will markedly contribute to the collection of real-world data on HF patients.