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

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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.