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► To cite this version:

Eran Kalmanovich, François Roubille, Audrey Castet-Nicolas. Response to ‘Pharmacy-based interdisciplinary intervention for patients with chronic heart failure: results of the PHARM-CHF randomized controlled trial’. *European Journal of Heart Failure*, 2020, 22 (3), pp.565. 10.1002/ejhf.1602. hal-02282567

HAL Id: hal-02282567

<https://hal.science/hal-02282567>

Submitted on 6 Jun 2020

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Response to 'Pharmacy-based interdisciplinary intervention for patients with chronic heart failure: results of the PHARM-CHF randomized controlled trial'

Laufs *et al.*¹ previously reported the design of the PHARM-CHF (PHARMacy-based interdisciplinary program for patients with Chronic Heart Failure) study, the aim of which was to investigate whether regular visits to a community pharmacist improve adherence to heart failure (HF) medications. Findings on the primary endpoint showed that, in comparison with usual care, meetings with a pharmacist resulted in a significant 5.7% absolute increase in the intake of the three recommended HF medications for 365 days. Furthermore, subsequent research found a more pronounced improvement in quality of life in the intervention group, but no impact on all-cause deaths or unplanned hospitalizations compared with the usual care group after 2 years.²

In our institution, we conducted a preliminary study between January 2016 and February 2017 with the aim of evaluating the impact of pharmaceutical collaboration on patients' prescriptions according to the European Society of Cardiology 2016 guidelines.³ The study included 327 patients with HF with reduced ejection fraction who were admitted with decompensation, and showed that only 43.1% of patients were in receipt of optimal treatment on admission, a proportion that improved to 61.2% at discharge ($P < 0.001$). Furthermore, pharmacists were involved in

the addition of recommended treatments for between 20% and 30% of the cases. Pharmacists performed 62 interventions relating to HF treatments, which included the addition of recommended treatments (61%), dose adjustments (22%) and treatment arrests (8%). The results encouraged us to propose a randomized controlled trial to evaluate the impact of the pharmacist's role in addition to usual medical care (NCT03902028). Our trial will include all adult patients hospitalized for HF decompensation. Patients will be randomized into a regular treatment arm or a medical-pharmaceutical management arm. Our primary goal is to assess the impact of coordinated management on rates of rehospitalization for HF decompensation at 3 months after discharge. The intervention arm will include a more collaborative intervention with the physician and a review of medication conducted by a pharmacist on patient admission, as well as a proposal for therapeutic optimization according to European guidelines,³ to be derived using a validated checklist. These activities will be completed by a medication reconciliation at discharge and patient education in order to improve patient self-management, together with a network of communication with community professionals. One month after discharge, a multidisciplinary consultation will evaluate the efficacy, safety and impact of the treatment plan on quality of life.

Our goal is ultimately to create an open network between the hospital and community professionals and thereby a more collaborative system of HF management which might reduce rates of readmission and HF-related mortality.

Acknowledgements

We acknowledge Yohan Audurier, Betty Mathieu and Nicolas Chapet for their

contributions to the conduct of the preliminary study and trial design.

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