**Discrepancies between Prescribed and Defined Daily Doses of Four-Pillar Therapy in Congestive Heart Failure Patients**

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**ABSTRACT:**

**Introduction.** Defined daily dose (DDD) is a statistical measure of drug utilization. DDD for a particular medicine is not always align with the average daily dose [i.e. Prescribed Daily Dose (PDD)] prescribed in the clinical practice.

**Aim.** The study aimed to identify the discrepancies between PDD and DDD amongst congestive heart failure (CHF) patients.

**Methods.** A single-center, hospital-based, prospective cohort study amongst congestive heart failure patients was carried out at the outpatient department of Cardiology from November 2023 to January 2024. All legible prescriptions containing guideline-directed medical therapy (GDMT); irrespective of patient’s sex, aged ≥ 18 years, New York Heart Association (NYHA) HF class I-III, were included in the study. Standard definitions of DDD and PDD were employed. A drug registry was curated on an ad hoc basis, that encompassed all required data related to patients’ disease and medications from which DDD and PDD were computed.

**Results.** A total of 84 eligible patients [ 63 (75%), males; 21 (25%), females] with a mean age of 60.08 ± 10.11 years were recruited in the study with consent. The majority (94%) were diagnosed with heart failure with reduced ejection fraction (HFrEF), 44% were *de novo* and 48% belonged to NYHA class III. A total of 685 medicines were used among participants with an average of 8.2 (with a mean of 10.54). However, only 37% of medicines were from GDMT, where the most commonly prescribed drugs per patient were β-Blockers [89%; n = 253)], followed by 68% of SGLT2-inhibitors, 67% of ARNI and 50% of MRA. The average PDD: DDD ratio of four-pillar therapy ranged from 0.23 (β-Blockers) to 0.33 (MRA) and 1 (SGLT2-i). Except GDMT, the PDD for Enoxaparin was on average 0.06 DDD, for Glimepiride (1.14 DDD), and Rosuvastatin (2.0 DDD).

**Conclusion.** The PDDs were lower than the DDDs for most of the prescribed drugs The variability of PDD and DDD for most of the drugs suggests further monitoring to optimize better patient care.

**Keywords:** *Heart Failure, Guideline-Directed Medical Therapy, Prescribed daily dose, Defined Daily Dose.*