

## Results of a multicenter retrospective study “Campania Internal medicine-the Clinical IN ternist for HF: Preliminary data

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**Background:** The Campania population is characterized by a high incidence and prevalence of heart failure (HF), due to the large percentage of subjects at high cardiovascular risk with the subsequent development of heart diseases which are the main causes of HF. To evaluate the adequacy of care responses and to provide a solid basis for the regionalization process of Healthcare it is fundamental the knowledge of the epidemiological reality. The aim of our study was to evaluate features and several parameters of the HF in the examined population of Campania region.

**Methods:** We examined all consecutive patients (pts.) admitted to 15 Internal Medicine Wards in Campania with the diagnosis of HF, over a period of three consecutive months included from January 2020 to January 2022. The diagnosis was made according to the guidelines of the ESC 2016. We analyzed demographic data, hospitalization diagnosis, heart rate and rhythm, blood pressure, etiology of HF, NYHA class, some echocardiographic parameters, thoracic ultrasound, comorbidities, any previous hospitalization, some laboratory parameters, and length of stay, re-admissions and therapy. Continuous variables were summarized with mean and standard deviations and categorical percentages.

**Results:** We enrolled all pts. diagnosed with HF consecutively admitted to 15 wards of internal Medicine in Campania over a period of three months: 521 pts., 276 (53.0%) females (F), 245 (47.0%) males (M), mean age 78.5 years (higher in F). 247 pts. (47.4%) had atrial fibrillation. Arterial hypertension was the most frequent cause of HF (63.4%), with a higher prevalence in F (65.9 %); the prevalence of ischemic HF was higher in M (62.9%). NYHA

class was indicated in 469 pts.: 1.3% in NYHA functional class I; 27.7% in II; 47.6% in III and 23.4% in IV. Only in the latter functional class we observed a statistically significant difference in gender, with a higher prevalence of M. Echocardiogram (430 pts.; 82.5%) showed an EF  $\leq$  40% in 170 cases (39.5%), with gender difference (M 60.6%); EF  $\geq$  50% in 156 pts., (F 65.4%). 31.5% pts. underwent chest ultrasound. Pro-BNP was measured in 79.1% pts. 233 pts. (46.7%) had at least one hospitalization in the previous year while 16.9% pts. had been hospitalized in the previous 30 days. Only one comorbidity was present in 4.1% of pts., two in 8.0%, triple or more impairment of other organ systems was present in 87.7% of cases. 26.7% of patient's had  $\geq$ 6 comorbidities. Hypertension was the most frequent associated disease (86.4%), with a slight prevalence in F (54.5%) other significant comorbidities were: chronic renal failure 59.9%, diabetes 44.6%, COPD 43.0%, cerebral vasculopathy 31.2%, neoplasms 9.3%, liver disease 8.2%. The drugs most frequently taken at admission were: diuretics (71.6%), BB (63.3%), antiplatelet agents (43.0%), ACEi (39.1%), sartans (27.6%), MRA (20.6%), ARNI (3.7%). About 32.9% of patients were receiving oral anticoagulants (57.5% of patients with atrial fibrillation). The average hospital stay was 10.9 days.

**Conclusions:** Our preliminary data provide us with the features of pts. with HF in Campania, helping us in the effective their management. Similarly to what has been highlighted in previous studies, in the hospital “real life”, advanced age and comorbidities characterize the pts. With HF admitted to Internal Medicine and prescription drugs on the territory are only in partial agreement with the standards outlined by current guidelines in our region.