

**Background** Over the past decade, transcatheter aortic valve implantation (TAVI) has emerged as a novel and less invasive alternative to traditional surgical aortic valve replacement (SAVR) for the management of severe aortic stenosis (AS) in higher-risk elderly patients.

**Purpose** Our aim was to evaluate the frequency of polypharmacy (treatment with more than four medications per person) and to analyse the ATC class of medications prescribed in a fragile population.

**Material and methods** We analysed the data of patients whose medical procedures included TAVI or SAVR, between January 2016 and October 2017.

We identified a total of 903 patients who underwent TAVI (n=228) or SAVR (n=675), whose clinical characteristics were assessed by calculating the Charlson comorbidity index (CCI).

**Results** Patients in the TAVI group were more likely to be older ( $p<0.0001$ ), female ( $p<0.01$ ) and to have a higher CCI ( $p=0.05$ ).

No significant difference in polypharmacy was observed between the two groups at discharge, after 6 and 9 months from the hospitalisation. In particular, the patients in polypharmacy, immediately after discharge, were 29% in the TAVI group and 35% in the SAVR group ( $p=0.07$ ). After 6 months from discharge, the percentage of patients in polypharmacy had increased to over 80% in both groups and this data was confirmed after 9 months. In both groups, the most prescribed drugs at discharge were the antithrombotic agents (50.1% TAVI, 40.3% SAVR;  $p=0.005$ ), followed by the drugs for peptic ulcer and gastroesophageal reflux disease (29.4% TAVI, 33.6% SAVR;  $p=0.24$ ), high-ceiling diuretics (19.3% TAVI, 33.6% SAVR;  $p<0.0001$ ) and beta-blocking agents (20.2% TAVI, 28.1% SAVR;  $p=0.018$ ). The same evaluations on the prescribed medications were also made after 6 and 9 months.

**Conclusion** This first analysis found that polypharmacy was common in over one-third of our participants at discharge (both TAVI and SAVR group).

We found no association between polypharmacy and the type of AS treatment, but we observed some difference in the drug class between the two groups.

The next steps will be to investigate the presence of inappropriate drug combinations and to implement an inter-professional approach at discharge for improving polypharmacy issues.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

## 5PSQ-142 RISK FACTORS FOR HYPONATRAEMIA IN ELDERLY PATIENTS, BEYOND PHARMACOLOGICAL ADVERSE EFFECTS

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**Background** Hyponatraemia is the most frequent electrolyte disorder among elderly patients (9.4%–15.0% of

prevalence). It is rarely attributed to pharmacological causes despite being one of the most common drug-induced electrolyte abnormalities. Although some studies have shown an increase in mortality, others have failed to confirm this association.

**Purpose** To estimate the prevalence of hyponatraemia in geriatric patients.

To determine which chronic drugs or alternative risk factors are associated with hyponatraemia and whether hyponatraemia is related to re-admission or mortality.

**Material and methods** We included  $\geq 80$  years' old patients consecutively admitted from March to July 2018 in an Acute Geriatric Unit (81 beds) of a University Hospital. Data collected: age, sex, pre-admission Barthel and Pfeiffer tests, number and family of chronic drugs, laboratory test, comorbidities, length of stay (LOS), mortality, re-admission and mortality at 30 days post-discharge.

## Results

Abstract 5PSQ-142 Table 1

|   | Hyponatraemia<br>(Na<135 mEq/L)<br>n=29 (18.86%) | Normonatraemia<br>(Na=135–145 mEq/L)<br>n=143 (83.14%) | P-value             |
|---|--|--|---------------------|
| Age                                       | 90.1 (86.4–93.4)                                 | 88.4 (85.5–90.3)                                       | 0.1287*             |
| Nonagenarians                             | 15 (52.72%)                                      | 40 (27.97%)  | 0.0164 <sup>‡</sup> |
| Females                                   | 20 (68.97%)                                      | 83 (58.04%)  | 0.3056 <sup>‡</sup> |
| Barthel                                   | 50 (20–70)                                       | 65 (45–85)   | 0.0103*             |
| Pfeiffer                                  | 4 (2–6)  | 3 (1–5)  | 0.1777*             |
| Polypharmacy                              | 10.0 (8–14)                                      | 11.0 (8–14)  | 0.9706*             |
| Loop diuretics                            | 17 (58.62%)                                      | 92 (64.34%)  | 0.6729 <sup>‡</sup> |
| Thiazides                                 | 10 (34.48%)                                      | 12 (8.39%)   | 0.0006 <sup>‡</sup> |
| Potassium-sparing                         | 3 (10.34%)                                       | 6 (4.20%)  | 0.1781 <sup>‡</sup> |
| Selective serotonin reuptake inhibitors   | 7 (24.14%)                                       | 28 (19.58%)  | 0.6147 <sup>‡</sup> |
| Antipsychotics                            | 5 (17.24%)                                       | 32 (22.38%)  | 0.6280 <sup>‡</sup> |
| Na <sup>+</sup> (mEq/L)                   | 132 (131–133)                                    | 139 (138–141)  | 0.0000*             |
| K <sup>+</sup> (mEq/L)                    | 4.8 (4.25–5.05)                                  | 4.5 (4.1–4.8)  | 0.0667*             |
| Glomerular filtration rate (GFR) (ml/min) | 27.7 (19.6–52.9)                                 | 43.7 (28.9–61.7)                                       | 0.0213*             |
| Heart failure                             | 12 (41.38%)                                      | 79 (55.24%)  | 0.2213 <sup>‡</sup> |
| Atrial fibrillation                       | 11 (37.93%)                                      | 59 (41.26%)  | 0.8370 <sup>‡</sup> |
| Diabetes mellitus                         | 19 (65.52%)                                      | 59 (41.26%)  | 0.0236 <sup>‡</sup> |
| Renal failure (GFR<30 ml/min)             | 15 (51.72%)                                      | 34 (23.94%)  | 0.0057 <sup>‡</sup> |
| LOS (days)                                | 13 (9–17)  | 10 (7–16)  | 0.1318*             |
| Mortality                                 | 4 (13.79%)                                       | 19 (13.29%)  | 1.0000 <sup>‡</sup> |
| 30 day re-admission                       | 7 (28.00%)                                       | 28 (22.58%)  | 0.6070 <sup>‡</sup> |
| 30 day mortality                          | 2 (8.00%)  | 7 (5.65%)  | 0.6470 <sup>‡</sup> |

\* -Mann-Whitney U -and Wilcoxon. Median data (P25–P75).

<sup>‡</sup>Fisher's exact test

**Conclusion** The studied population displays hyponatraemia prevalence slightly above those of published values (see table 1). Hyponatraemia is associated with the use of thiazides and other factors such as age (>90 years), functional capacity, renal function and diabetes mellitus. Instead, re-admission and mortality rates remain unaltered.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.