Background and Importance

Those elderly, dementia patients who receive treatments for their various chronic diseases belong to a high risk cohort. Their individualisation medication should avoid treatment with multiple drugs and with active substances, which pose a health risk for them. This may eliminate the adverse effects to which these patients are particularly susceptible.

Aims and Objectives

The study evaluates the medical treatment of dementia patients receiving chronic and palliative cares simultaneously. We collected data of individualised medications from historic patient records in 2020 - 2021. The study was approved by the research ethics committees of the university and the hospital (IG/02176-000/2022).

Materials and Methods

We examined the real-world data of drug treatment in dementia patients aged 65 or older who spent at least 5 days in hospital. We analysed the anonymised, aggregate data. We used international databases compiled from meta-analyses and systematic reviews (Beers Criteria® , START/STOPP , WHO, EMA and UCSF)* (Table 1).

Results

We analysed the drug treatment history of 108 patients (74 women, 34 men with the average age of 80.5 ± 9 year), who met the preliminary selection criteria. We classified the patients into the following cohorts: 1.9 % direction diagnosis, 20.4% basis of the main diagnosis, 35.2% main diagnosis, 38.9% comorbidity and 3.7% direction disease underlying death. The distribution of dementia types were: 53.7% vascular, 1.9% related to other diseases and 44.4% unspecified. The average number of medicines taken per day per patient was 10.8 pieces. Multiple drug treatment occurred in 86.1% of patients. The most frequent medicines taken by the patients were: enoxaparine, pantoprazole, potassium chloride, sodium chloride, quetiapine and bisoprolol (Fig 1). 10% of the patients received medicine to treat dementia.

From this investigation we concluded that the active involvement of a clinical pharmacist and the internationally validated clinical database systems are essential. We analysed the drug treatment history of 108 patients (74 women, 34 men with the average age of 80.5 ± 9 year), who met the preliminary selection criteria. We classified the patients into the following cohorts: 1.9 % direction diagnosis, 20.4% basis of the main diagnosis, 35.2% main diagnosis, 38.9% comorbidity and 3.7% direction disease underlying death. The distribution of dementia types were: 53.7% vascular, 1.9% related to other diseases and 44.4% unspecified. The average number of medicines taken per day per patient was 10.8 pieces. Multiple drug treatment occurred in 86.1% of patients. The most frequent medicines taken by the patients were: enoxaparine, pantoprazole, potassium chloride, sodium chloride, quetiapine and bisoprolol (Fig 1). 10% of the patients received medicine to treat dementia.

Table 1 Drugs to be avoided or to be used with caution in patients with dementia.

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<thead>
<tr>
<th>Name of the medicine</th>
<th>Number of the patient taking the medicine (of the patients n=108)</th>
<th>Patients taking the medicine (%) (of the patients n=108)</th>
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Table 2 Number of patients who received the “underlined” medicines. None of the patients were treated with hydroxyzine.

Conclusion and Relevance

From this investigation we concluded that the active involvement of a clinical pharmacist and the internationally validated clinical database systems are essential. They enhance the clinical effectiveness of medication by reducing multiple drug uses and by eliminating adverse drug reactions. Our real-world study is highly beneficial for the individualised medication of dementia patients who are in chronic hospital care.