RETROSPECTIVE STUDY ON INDIVIDUALISED MEDICATION OF DEMENTIA PATIENTS RECEIVING CHRONIC HOSPITAL CARES

Sara Merczel[1], Tibor Bali[1], Lajos Botz[2]
[1]Somogy County Kaposi Mór Teaching Hospital, Department of Pharmacy, Tallián Gyula Street 20-32, 7400 Kaposvár, Hungary.
[2]University of Pécs, Faculty of Pharmacy, Department of Pharmaceutics, Honvéd Street 3, 7624 Pécs, Hungary.

Background and Importance

Those elderly, dementia patients who receive treatments for their various chronic diseases belong to a high risk cohort. Their individualised 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).

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

- If dementia cases are eliminated or filtered out in at least 2 of all reviewed meta-analyses and systematic reviews (Beers Criteria®, START/STOPP, WHO, EMA, UCSF, Summary of Product Characteristics)*
- Underlined drugs are included in all data sources, or drugs which to be avoided, or must be used with caution, according to the Summary of Product Characteristics in the case of dementia

Antidepressants	Antiepileptics	Antipsychotics	Anxiolytics	Hypnotics and sedatives	Muscle relaxants	Urologicals
Desipramine	Clonazepam	Chlorpromazine	Diazepam	Temazepam	Cyclobenzaprine	Oxybutynin
Imipramine		Perphenazine	Chlordiazepoxide	Zolpidem		Tolterodine
Clomipramine		Thioridazine	Medazepam	Zaleplon		Solifenacin
Amitriptyline		Haloperidol	Lorazepam	Eszopiclon		Darifenacine
Nortriptyline		Loxapine	Clobazam			Fesoterodine
Paroxetine		Clozapine	Alprazolam			
Diphenhydramine (oral)		Olanzapine	Hydroxyzine			
Doxylamine		Tiapride				
		Risperidone				

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% 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 (donepezil in 60% of the cases, memantine in 40% of the cases) (Fig 2). At least one required medication was not administered to 38.9% of dementia patients because of its adverse effects. There were several patients who were treated with the „underlined" medicines in Table 1 for a long time (Table 2).

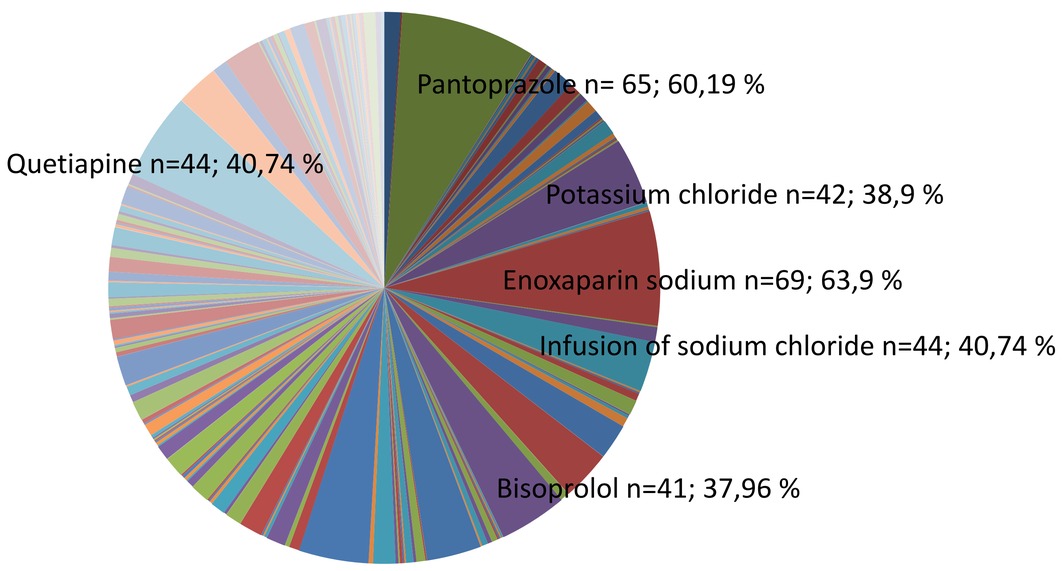

Fig 1 Distribution of the administered medicines, and the number of the investigated patients (n) taking these.

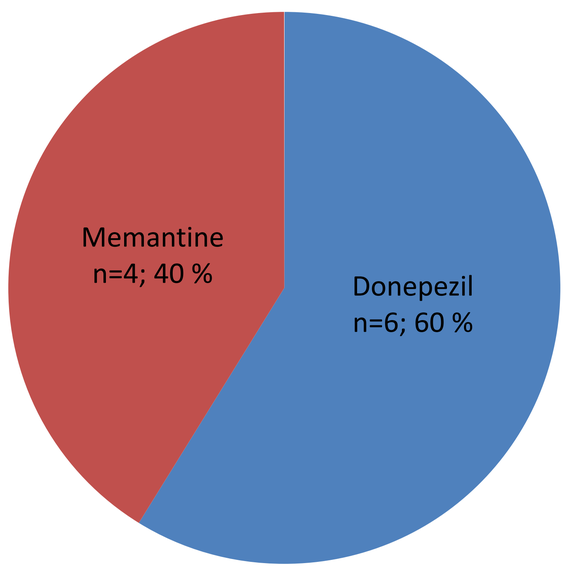

Fig 2 Number of the patients (n) who received medicines Donepezil and Memantin to treat dementia.

Name of the medicine (regardless of the dosage form)	Number of the patient taking the medicine	Patients taking the medicne(%) (∑ number of the patients n=108)
Haloperidol (max 5mg/day, reviewed after every 6 weeks)	12 patients (2 patients > 6 weeks)	11,11 % (1,85 %)
Tiapride (200-300 mg/day until 1-2 months)	27 patients (4 patients > 2 months)	25 % (3,70 %)
Risperidone (max 2 x 1 mg/day, max until 6 weeks)	8 patients (2 patients > 6 weeks)	7,41 % (1,85 %)

Table 2 Number of the patients received „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 the 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.

Abstract number: NP-004

27th EAHP Annual Congress, 22-24 March 2023, Lisbon, Portugal
merczel.sara@kmmk.hu

*Beers Criteria®: https://doi.org/10.1111/jgs.15767 | START/STOPP: https://doi.org/10.1080/17512433.2020.1697676
WHO: https://www.who.int/publications/i/item/9789241550109 | EMA: https://doi.org/10.1007/978-3-319-43099-7_34
UCSF: https://memory.ucsf.edu/treatments-stays/medications-dementia#Anxiety
(all of these were last accessed on 25.02.2023)