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Conference Abstract

Analysis of drug prescription appropriateness in the integrated management of dementia in a Health District of Modena

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Abstract

Introduction: In the province of Modena an agreement between the Local Authority for Health of Modena and the General Practitioners (GPs) is in force since 2002. It consists of a protocol for integrated care of people with dementia (PWD) and their families between GPs and the Specialist centres for cognitive disorders, divided into two stages: 1) Taking charge of the patient by the GP - Module A; 2) Follow-up care management- Module B, containing besides patients' demographic characteristics, clinical and therapeutic data useful to monitor the incidence of complications considered notorious risk factors for hospitalisation and institutionalisation of PWD.

Aims: To verify the frequency of the prescription and side effects of three classes of drugs commonly used in people with dementia (cholinesterase inhibitors and Memantine, first and second generation antipsychotics and antidepressants) and to relate these data to some indicators judged important for the quality of care and of life of the patient and his family (severity of dementia, disease progression, the presence of behavioural and psychological symptoms of dementia (BPSD) and the family's endurance to care for the patient at home).

Methods: The grading of dementia was performed on the basis of the MMSE scores: absent (≥ 27); mild (26-21), moderate (20-15); moderate-to-severe (14-10); severe (9-3); very severe (2-0). The data were analysed with SPSS (Windows version 21) and values of $p < 0.05$ were considered statistically significant.

Results: The mean age (\pm SD) of 722 patients registered in 2013 is 84 (\pm 6.9) years (range: 41-101). There are 505 females (69.9%) who are 2.35 years older than the male patients ($F(1,720)=15.54, p<0.0001$). Only in 7 cases (1%) data are missing on prescription of psychotropic drugs. 34.5% ($n = 249$) of the patients takes an anti-dementia drug, 28.7% ($n = 207$) are treated with antipsychotics and 56.8% ($n = 406$) with antidepressants, with a higher prevalence in women. The prevalence rates of side effects are very low (anti-dementia drugs: 0.8%; antipsychotics: 1.9%; antidepressants: 2%) with a higher frequency in patients aged 75 years and over. It should be noted, however, that there is a high number of missing data: anti-dementia drugs: 65.5%; antipsychotics: 71.5%; antidepressants: 43.8%. Relating the consumption of these drugs to the degree of dementia severity, at least three points are worthy of note. First, 37 patients (16.5%) are on treatment with cholinesterase inhibitors or Memantine despite a MMSE score <10 , and thus off-label according to the Italian Medicine Agency regulations. Second, more than half of patients treated with antipsychotics (54.4%, $n = 93$) are in the more advanced stages of dementia. Indeed, their mean (\pm SD) MMSE score is significantly lower compared to those without antipsychotic therapy (13.55 (\pm 7.25) vs. 17.32 (\pm 6.68), $F(1,168) = 36.91, p < 0.0001$). Lastly, an opposite profile emerges for antidepressants; 64.8% ($n = 239$) of the patients who are being treated for depression, obtain a MMSE score ≥ 15 , without reaching a statistically significant difference in their mean values compared to those without antidepressant therapy. One hundred and two patients (representing 16.2% of the sample because data are missing in 91 cases) manifest BPSD, of which more than half (55.6%, $n = 55$), are considered as "worsened" by the GPs. Relating the presence of BPSD to psychotropic drug use, it emerges that more than half of patients with BPSD (66.7%) is under antidepressant treatment, 46.1% is under antipsychotics and only 29.4% of patients with BPSD assumes anti-dementia drugs. Rather surprisingly, 142 patients (26.9%) without BPSD take antipsychotics. By contrast, 85.3% ($n = 174$) of the patients without BPSD is in anti-dementia therapy. The comparison between the consumption of the three classes of psychotropic drugs and the course of the disease shows that 51.1% ($n = 106$) of the patients on antipsychotics is considered "worsened"; a similar percentage (51.2%, $n = 125$) treated with anti-dementia drugs, however, is considered "stable". A very low percentage of patients are judged "improved" (e.g., 5% in the subgroup treated with antidepressants). The GPs consider the family's endurance in the vast majority of cases as "good" (59 missing cases) and 34.1% ($n = 29$) of home care of patients with BPSD is defined as "unmanageable" or "difficult." Even knowing that the reason of a family's endurance is multifactorial, we note that the use of anti-dementia drugs and antidepressants is associated in 90.0% and 88, 7% of cases, respectively, with a good sustainability of the family. In contrast, despite the treatment with antipsychotics the family's tightness is considered as "unmanageable" or as "difficult" in over 40% of the cases.

Conclusions: Modules B provide valuable data regarding the pharmacological treatment of PWD. Some data in this descriptive study deserve some comment. The frequent prescription of antidepressants likely stems from two factors. First, and in agreement with the literature, there is a tendency to use more often this class of drugs in the treatment of BPSD in light of recent data on the unfavourable risk-benefit profile of antipsychotics, although in this sample a significant percentage of patients take antipsychotics in the absence of BPSD. Second, Trazodone, is classified as an antidepressant (ATC N06AX) even though his prescription is intended to tranquilise the patient or to induce sleep. A very large number of missing data on the side effects of the three classes of drugs, unfortunately indicates a scarce attention to this aspect of pharmacotherapy in real world PWD, despite their widespread use. Finally, and again in accordance with the literature, there is little if any difference on the disease progression of patients with or without cholinesterase inhibitor therapy (or Memantine) even though its prescription seems to favour the absence of BPSD and a good sustainability of home care by the family. In contrast, both the presence of BPSD and the prescription of antipsychotics are associated with a worse disease progression and also families' endurance does not seem to be positively influenced by the use of antipsychotics.

Keywords

dementia; primary care; drug prescription

PowerPoint presentation

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