ESTIMATING INCIDENCE RATES OF ADVERSE EVENTS OF CHOLINESTERASE INHIBITORS IN ALZHEIMER'S DISEASE PATIENTS USING SPONTANEOUSLY REPORTING DATA.

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Introduction: Donepezil, rivastigmine and galantamin are reversible acetylcholine esterase inhibitor (ChEIs) authorised for the symptomatic treatment of patients with mild to moderate severe Alzheimer´s disease, the most common cause of dementia in elderly people. As disease progresses, the management of this condition becomes increasingly difficult. Dementia complicates and compromises patients' ability to accurately report symptoms and carefully follow medical prescription.

Objectives and methods: The purpose of this study was to evaluate and compare the safety and tolerability of ChEIs between literature data and clinical practice by analysing data from Campania Region collected in the Italian Network of Pharmacovigilance. Pivotal studies demonstrated that the adverse drug reactions (ADRs) commonly associated with ChEIs included nausea, vomiting, diarrhea, and anorexia. Other ADRs, which occurred significantly more frequently, were dizziness, headache, fatigue, malaise, sweating, asthenia, somnolence, dyspepsia, and sinusitis.

Results: Our research in the Italian Network of Pharmacovigilance showed that ADRs reports related to ChEIs were 111 overall. Specifically, ADRs reports related to donepezil were 67 (60%); among these, the most frequent were agitation, insomnia, irritability, behavioral disorders and mental confusion; 39 reports were related to rivastigmine (35%), mainly nausea, vomiting and abdominal pain; finally, ADRs related to galantamin were only 5 (5%), in particular drowsiness and asthenia.

Conclusion: the results of our analysis demonstrated that very few ADR reports were uploaded in RNF; which in our opinion suggests that clinicians under-report. Cognitive impairment is associated with a lower detection rate of ADRs, and it represents a confounder of the association between age and ADRs. Moreover, patients with dementia usually reported symptoms that might occur in an atypical way, often not recognized and considered as typical of disease. Therefore, appropriate safety evaluations of drugs in real life, especially in patients with Alzheimer's disease, are crucial to assess their benefit–risk ratio. Spontaneous reporting is the most common method used in pharmacovigilance and the best one to generate signals on new or rare ADRs. The under-reporting rate of ADRs should be taken into account when comparing ADRs for different drugs.