

Prescribing pattern of blood glucose-lowering drugs in new diabetic patients in real practice

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The rising prevalence and incidence of blood glucose-lowering drug use is considerably attributable to the progressive aging and increasing obesity. Evidence about antidiabetics use in European countries with high risk are limited.

To assess the dispensing pattern of blood glucose-lowering therapy and the characteristics of the naïve users in Southern Italy.

Several claims data of Caserta Local Health Unit (LHU), a province of Southern Italy with 1 million of residents, were combined: i) drugs routinely dispensed to the patients and paid for by the national health system, ii) drugs directly supplied to patients by LHU, and iii) drugs supplied by hospitals through local pharmacies. People who received at least one dispensing of antidiabetics between January 2009-December 2012 were identified. The prevalence of use and incidence of new treatments (per 1,000 inhabitants with 95% CI) were calculated for each year and stratified by group therapy. Sub-analyses by age and co-medication therapy were performed.

Overall, the 1-year prevalence of anti-diabetics use increased from 62.6 (CI 95% 62.1-63.1)/1,000 inhabitants in 2009 to 63.7 (62.2-64.3) in 2011 whereas a light decrease was observed in 2012 (62.3; 61.8-62.8) likely due to the revision of reimbursement criteria. Accordingly, the incidence of new users of anti-diabetics increased from 12.4/1,000 inhabitants (12.2-12.6) in 2010 to 13.4 (13.4-13.7) in 2011, followed by a progressive decrease to 10.6 (10.4-10.8) in 2012. Metformin is the first choice treatment for new diabetic users followed by sulfonylureas and their combinations, although their use is slightly decreased on 2012, likely due to reimbursement rules. Overall, among 27661 new users of antidiabetics more than 30% received a concomitant prescription of anti-hypertensives (26.6%) and other cardiovascular agents (6.3%), followed by lipid modifying agents (19.3%).

This is a good example of management of multiple claims databases to evaluate dispensing trends to diabetic patients. According to the guidelines, the use of metformin and sulfonylureas, as either monotherapy or in combination, is the first choice for the initial treatment.