Early cardio-metabolic occurrences after atypical antipsychotic treatment: real world evidence from a large Italian claim database

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OBJECTIVE
To evaluate the cardio-metabolic events occurring in the first 24 months after the initiation of atypical AP treatment.

METHODS
A real world study was performed on the Ricerca e Salute (ReS) database, collecting the claim data of the national health service on more than 10 million Italian inhabitants. A real world study was performed on the Ricerca e Salute (ReS) database, collecting the claim data of the national health service on more than 10 million Italian inhabitants (Fig. 1). Among adult population, atypical AP new users were selected (Fig. 2) by searching reimbursed prescriptions in 2013 and by ascertaining their non use in the previous year. Subjects were grouped according to the presence / absence, in the previous year, of cardio-metabolic diseases (i.e. diabetes, cerebrovascular and ischemic heart diseases) and of their predisposing conditions (i.e. hyperglycemia, dyslipidemia and obesity) into: patients already affected by cardio-metabolic diseases (group A), patients without these clinical conditions but with predisposing conditions (group B) and patients without cardio-metabolic diseases and predisposing conditions (group C). Each subject of B and C groups was matched with a control with the same characteristics (age, gender, Local Health Units and presence/absence of predisposing conditions) but without atypical AP prescription. In the subsequent 24 months, the occurrences of cardio-metabolic events and predisposing conditions were searched, and related Kaplan Meier survival curves, for users and non-users of AAP, were compared by log rank test.

RESULTS
Among the 11,052,262 adults, 39,263 atypical AP new users were selected (57% female, median age 70 years). The 99.2% of the cohort received monotherapy with atypical AP at study entry, and the most prescribed drugs were quetiapine (46.2%), olanzapine (20.1%) and risperidone (13.8%). The 22.7% of patients resulted already affected by cardio-metabolic diseases (group A), 14.9% had predisposing conditions (group B) and 62.4% had none of these (group C) (Fig 3-4). After 24 months, 11.5% of group B developed a cardio-metabolic event, compared to 8.7% of controls (p<0.01) (Fig 5). These events occurred into 5.0% of group C in comparison with 2.1% of controls (p<0.01) (Fig 5ii) and predisposing conditions have appeared into 4.7% of group C compared to 1.7% of controls (p<0.01) (Fig 6).

CONCLUSIONS
This real-world study showed that patients treated with atypical AP had a significantly higher likelihood to develop cardio-metabolic diseases or their predisposing conditions in the first two years after treatment initiation. Clinicians should pay attention to early cardio-metabolic occurrences before and during treatment with atypical AP drugs, especially in terms of presence of predisposing factors for adverse events.

DISCLOSURE
The authors declare that they have no competing interests