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**“Metformin + PPI = -B12?” - Prescription study in diabetic patients of a primary health care unit**

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**Background:** Diabetes mellitus (DM) is a prevalent condition that is a risk factor for life quality and other diseases as gastroesophageic reflux (GERD). At GERD, gastric secretory activity suppressors (GSAS) are commonly used. Excessive prescription of proton-pump inhibitors (PPI) has been causing increased side effects and interactions. With a considerable number of DM patients taking metformin and GSAS, risk of B12 vitamin deficit, neuropathy and vascular complications are increased.

**Aim:** Characterize metformin and GSAS consumption, comorbidities and B12 vitamin deficit in DM patients of a primary health care unit (PHCU).

**Methodology:** Cross-sectional study at simple random sample of metformin-treated DM patients in 2015. Variables: comorbidities, GSAS prescription, B12 vitamin supplements, chronic consumption (CC; more than two months), prescription-related diagnosis.

**Results:** n=195 (mean age 68) - 68% have hypertension, 53% dyslipidemia, 3.5% dementia, 3.5% chronic alcoholism, 1.5% memory changes and 1.5% retinopathy. There were no records of peripheral neuropathy. One patient had sucralfate prescription; 61 (31%) were prescribed with PPI, 81% of those with CC (median: 19 months). Only 60% of PPI-CC has PPI-related diagnosis and 16% have potentially related free text records or endoscopy results. There were no patients diagnosed with vitaminic deficit or anemia. Three patients had B12 vitamin CC, with no PPI consumption. PPI-CC was found in 3 demented patients, 2 alcoholic patients and one patient with memory changes.

**Conclusion:** Despite record bias and reduced sample size, a relevant prevalence of DM patients with PPI chronic co-prescription with no clear reason was found. Under-diagnosis of peripheral neuropathy and vitamin deficit are admitted. This presentation also intends to sensitise prescribers and consumers for insightful prescriptions, polymedication risks and differential diagnosis of “diabetic” neuropathy that could be due partially by vitamin deficit. It could also be a starting point for quality improvement measures of PPI prescription in our PHCU.