Rheumatoid arthritis (RA) is an inflammatory autoimmune and chronic disease that affects the joints of the body covered by the synovial membrane, causing significant morbidity and premature mortality.

Currently there is no cure for this condition described. Treatment focuses on remission or achieve and maintain low disease activity and therapies are directed at the control of symptoms of pain and inflammation joints, minimizing the functional loss, maintaining the quality of life and reducing the risk of damage and disability.\(^1\)\(^-\)\(^3\)

Tofacitinib is an active immunosuppressant:
- oral administration (unnecessary cold chain)
- acts as a potent and selective inhibitor of Janus kinase family (JAK), more specifically JAK3 and JAK1, with an important role in cytokine signal transduction that regulates survival, proliferation, differentiation and apoptosis of lymphocytes.\(^4\)
- adequate response in monotherapy.
- may provide multiple benefits for patients, doctors .
- short half-life.
- innovative mechanism of action is considered beneficial to patients non-responsive to current therapy DMARD.\(^4\)

Furthermore, its expected to generate cost reduction in aggregate costs due to oral administration, requiring less resources than an by infusion made with biologic products, and does not require transportation and cold chain storage.

Therefore, could be the expectancy of budgetary impact in the current Private Brazilian Perspective.

**OBJECTIVE**

To assess the budget impact of tofacitinib standardization in Brazilian private healthcare system for the treatment of moderate to severe Rheumatoid Arthritis (RA).

**METHODS**

An cost-minimization was developed using one year of treatment in Private System Perspective. It was compared the average therapy with biological versus tofacitinib.

The reference population was composed by applying the RA prevalence in the Brazilian population to the number of SS beneficiaries for the year of 2015 which result n=233,722 beneficiaries.

For both, the following were also taken into consideration:

I. Drug cost: an estimate through the technology list price;

II. Assumed projection for tofacitinib diffusion rate in the private healthcare system;

III. Micro-costing of disease follow-up and administration (subcutaneous and intravenous) costs;

IV. Market share of biological therapies in the Brazilian market, for which projection was obtained from IMS Health data (2014).

All monetary units were in BRL.

**RESULTS**

The total cost of tofacitinib treatment (BRL 3,510.46) is lower than the mean total cost of treatment with biological DMARDs (BRL 4,694.30), with an approximate reduction of 25.22%.

**Figure 1 – Annual Treatment Cost**

Considering the assessed time horizon and the estimated diffusion rate for tofacitinib in relation to the biological therapy for SS beneficiaries in 2015, tofacitinib may yield savings of approximately 2% in 2015, 3% in 2016, 4% in 2017, 5% in 2018, 6% in 2019, adding up an accrued of approximately 20% in the first five years of its standardization in the SS.

**Figure 2 – Budget Impact Projection**

**REFERENCES**