**BACKGROUND**

- The introduction and uptake of biological disease-modifying antirheumatic drugs has substantially advanced the standard of care of patients with rheumatoid arthritis (RA)[1].
- A third of patients with rheumatoid arthritis treated with biological treatments receive them as monotherapy[1].
- Tocilizumab is a humanised monoclonal antibody that binds to membrane-bound and soluble forms of the human interleukin 6 receptor, inhibiting signalling mediated by interleukin 6 and its inflammatory effects[2,3].
- In a randomized, double blind, controlled phase IV trial (ADACTA)[4,5] Tocilizumab (TCZ) intravenous (IV) demonstrated superiority vs Adalimumab (ADA) subcutaneous (SC) in monotherapy, reducing RA signs and symptoms in patients for whom methotrexate (MTX) was not tolerated or was inappropriate[6].

**OBJECTIVE**

The present economic evaluation (EE) aimed to evaluate the cost per response (ACR20, 50 and 70) and the cost per disease remission (DAS28 <2.6 or CDAI ≤2.8) of TCZ vs ADA in a RA monotherapy setting.

**METHODS**

- An Excel® model was built to carry out the comparison between the two biological drugs.
- The EE was conducted from the Hospital perspective and the time horizon was 24 weeks.

**Clinical data**

- TCZ-IV (8mg/kg monthly) and ADA-SC (40mg Q2W) monotherapy were compared, using efficacy results from the ADACTA trial[4,5]:
  - ACR response rate (20, 50, 70)
  - Disease remission (DAS28 <2.6 or CDAI ≤2.8)

**Resource Consumption and Unit Costs**

- The EE was modelled on resource-use data (drug consumption, drug administration and monitoring) gathered from the literature[4,5]. The consumption of health-care resources (drug administration) needed for the infusions covered nursing and medical staff and materials required for IV infusion. Monitoring considered the number and the frequency of clinical visits, diagnostic and laboratory tests.
- The EE considered only direct medical costs. The acquisition cost of each drug was based on the ex-factory prices. Cost assessments for monitoring and administration were based on National tariffs[7] and nursing and medical staff cost per minute considering their mean annual salary[7].

**RESULTS**

- Table 5 shows the total cost (drug acquisition, drug administration and monitoring) for 24 weeks of treatment with TCZ-IV or ADA-SC.
- Figures 1 and 2 show the cost per ACR (20, 50, 70) and the cost per remission (DAS28 <2.6 or CDAI ≤2.8), respectively.

**CONCLUSION**

- According to this EE, in Italy TCZ-IV monotherapy can be considered as a cost-effective strategy compared to ADA-SC monotherapy for treating RA patients intolerant of MTX or for whom MTX is inappropriate.

**REFERENCES**

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