COST-EFFECTIVENESS OF AZACITIDINE IN THE REAL-WORLD: ANALYSIS IN HIGH-RISK PATIENTS WITH MYELODYSPLASTIC SYNDROMES FROM THE PERSPECTIVE OF A EUROPEAN PUBLIC HOSPITAL

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Background Azacitidine is the recommended treatment for higher-risk myelodysplastic syndromes (MDS) in patients who are not candidates for haematopoietic transplantation. It is also used in low-risk MDSs where supportive treatment fails.

Purpose To evaluate the incremental cost-effectiveness ratio of azacitidine versus supportive care in patients with MDS treated in a public hospital, from the payers’ perspective.

Material and methods Observational retrospective study: two cohorts of patients with MDS (n=53 patients each one), with similar demographic, clinical, biological and haematological characteristics. Medication consumption, transfusion support and hospital resources were accounted for each patient, according to the Valencian Community Fees Law (2016 fiscal year), and to the 2017 final hospital sale price for medicines. Overall survival since diagnosis was the measure of effectiveness.

Mean based cost-effectiveness ratio was estimated with the bootstrapping resampling technique. The average cost was calculated with the Bang–Tsiatis reweighted estimator and restricted mean survival time (RMST) was used for effectiveness.1

Patients were stratified according to the International Prognostic Score System for risk: 25 high-risk/intermediate-2 treated with azacitidine, and 21 with supportive care.

Results Patients treated with azacitidine showed improved survival in high-risk/intermediate-2 patients (RMST: 33 versus 19 months; Kaplan–Meier median survival: 13 versus 6 months).

The mean-based cost-effectiveness ratio was €1 812 per life-year gained. According to the cost-effectiveness plane, 91% of values lie in the northeast quadrant, where increased survival is achieved at increased cost. Sixty-eight per cent of the values are within the threshold (€30 000 per life-year gained) of willingness to pay commonly accepted for cost effectiveness in Spain.

Conclusion Azacitidine shows a favourable cost-effectiveness ratio in high-risk intermediate-2 patients, although with the uncertainty derived from the small sample size. This result corroborates what is reflected in the bibliography for azacitidine cost-effectiveness, but is based on data obtained from the usual healthcare practice. On the contrary, azacitidine cost-effectiveness publications are usually based on mathematical models and data from clinical trials, which shows more favourable results than real-world practice.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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