Title: Cost-utility of Dalbavancin versus Standard of Care (SoC) in patients with ABSSSI in Italy

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Abstract

Objectives: The aim of this study was to conduct a cost-utility analysis to compare dalbavancin for the management of Acute bacterial skin and skin structure infections ABSSSI with the standard antibiotic therapy from the National Health Service (NHS) perspective.

Methods: A probabilistic decision tree model with a 30-days follow-up was developed to simulate the therapeutic path of two homogeneous cohorts of 100 patients treated with dalbavancin or Standard of Care (SoC). The model considers three mutually exclusive health state: a) discharge patients from the Emergency Department, 2) discharge patients after one night from the admission and c) discharge after 24 or 36 hours after admission. Discharge risk and utilities were derived from the literature and drug, hospital and adverse costs were considered. A one-way deterministic sensitivity analysis (OWDSA) and a Probabilistic Sensitivity Analysis (PSA) were conducted to take

into account the variability of the results based on the parameters considered in the analysis. Due to the short period of follow-up, no discount rate was considered for both costs or QALYs.

Results: Considering a cohort of 100 patients, the model estimated a total annual cost equal to € 183,197 for patients treated with SoC. If the same patients were treated the dalbavancin, the direct costs increase of € 3,921 for 100 patients. In terms of QALYs, patients treated with dalbavancin could increase life years lived in perfect health from 7.81 to 7.95. Combining cost and efficacy, the incremental cost-effectiveness ratio equal to € 27,968 per QALY gained from the payer perspective. PSA and OWDSA demonstrate the robustness of the results.

Conclusions: Our analyses show that dalbavancin represente a cost-effectiveness option if compared to the SoC for the treatment of non-severe ABSSSI patients.