

Session: P058 New data on new tetracyclines

Category: 5d. Pharmacoepidemiology, improved prescribing and antibiotic stewardship

24 April 2017, 12:30 - 13:30
P1266

Cost-saving opportunities among hospitalized patients with acute bacterial skin and skin structure infections with omadacycline, a once-daily antibiotic with IV-to-oral transition capability, relative to current standard of inpatient care

Kenneth Lapensee*¹, Thomas Lodise²

¹*Paratek Pharmaceuticals*

²*Albany College of Pharmacy and Health Sciences*

Background: Care of patients with acute bacterial skin and skin structure infection (ABSSSI) places a major financial burden on the healthcare system, largely due to inpatient costs. Omadacycline (OMC) is an oral (PO) and IV once-daily antibiotic with broad spectrum activity, including MRSA that is under development for the treatment of patients with ABSSSIs. The present study examined the cost impact of shifting ABSSSI patients from current inpatient standard of care (SOC) treatment to inpatient IV OMC treatment with early hospital discharge on oral OMC. The goal was to identify the hospital length of stay (LOS) reduction required for OMC treatment to confer cost savings.

Material/methods: A decision-analytic, cost-minimization model from the hospital and payer's perspectives was constructed to compare costs associated with inpatient SOC versus OMC treatment (IV in hospital and discharge home on PO) among patients with ≥ 2 comorbidities and no life-threatening conditions. All OMC patients received OMC PO to complete 10-day course of therapy (COT). In the SOC arm, patients either completed COT with IV vancomycin in a hospital-based clinic (50%) or received a generic PO antibiotic (50%) to complete a 10-day COT. Inputs for LOS and costs were obtained from the Premier Hospital Database™. The daily costs for OMC were varied from 0 to \$1,000/day.

Results: In the Premier Hospital Database, the median LOS for ABSSSI patients with ≥ 2 comorbidities and no life-threatening conditions was 5 days, and each hospital day was estimated to be \$1,346 in 2016 US dollars. From the hospital perspective, which excluded

outpatient cost, OMC was cost saving with a 1-day hospital LOS reduction if the daily cost of OMC was $\leq \$543$. From the payer's perspective, which included outpatient treatment costs, OMC was cost saving with a 2 days' LOS reduction at all OMC daily cost levels below \$410/day.

Conclusions: Cost saving may be realized with OMC relative to SOC inpatient treatment if hospital LOS is reduced by 1 to 2 days with OMC IV-to-oral transition treatment. All of these findings need to be validated in the clinical trial arena.

