THE ISPOR SCIENTIFIC PRESENTATIONS DATABASE

» Back to Results List | » New Search | » Digest Main Page

ID:	39393
Meeting / Value in Health Info:	ISPOR 17th Annual European Congress Amsterdam, The Netherlands November, 2014
Code:	PIN71
Disease:	Infection all
Topic:	Cost Studies (CS)
Topic Subcategory:	Cost-Effectiveness Analysis (CE)
Title:	COST-EFFECTIVENESS OF FECAL MICROBIOTA TRANSPLANT IN TREATING CLOSTRIDIUM DIFFICILE INFECTION IN CANADA
Author(s):	Zowall H, Brewer C, Deutsch A Zowall Consulting Inc., Westmount, QC, Canada
Pdf File:	View presentation

Content:

OBJECTIVES: To estimate the cost-effectiveness of Fecal Microbiota Transplant (FMT) for Clostridium difficile infection (CDI) as compared to the current practice comprising of antibiotic treatments. METHODS: We developed a decision analytic model to compare strategies for the management of CDI, by age, gender, and three sources of infection: hospitals, communities, and long-term care facilities (LTCF). We performed validation analyses to demonstrate that the predicted CDI rates were a reasonable representation of the selected actual rates. Mortality rates were stratified by age. A probabilistic sensitivity analysis (PSA) was performed to account for the effect of uncertainty in the model parameters. RESULTS: For the current practice, we estimated that annually 75% of CDI cases are new infections; the rest are recurrences; 40% of CDI occurs among individuals aged 80+, 41% among 60-79, and 19% among those below 60; hospital-based CDI accounted for 69 % of all CDI, while community and LTCF based CDI accounted for 26% and 5% of all CDI, respectively. The recurrence rates for current antibiotic treatment were estimated at 25.3% and 35.9% for first and second recurrences, respectively. The recurrence rate for FMT was estimated at 10.4%. For the base case, we estimated 79.0 and 64.9 per 100,000 population cases of CDI for current practice and FMT, respectively. The number of deaths is estimated at 5.8 and 4.7 per 100,000 population for current practice and FMT, respectively. The results of the cost-effectiveness analysis indicate that in the base case, FMT is a dominant strategy. The results of the PSA reveal that for the majority of simulations, FMT is dominant (positive incremental QALYs and negative incremental cost). CONCLUSIONS: The results of the cost-effectiveness analysis indicate that FMT appears to be the dominant strategy, with lower costs and better outcomes than the existing antibiotic treatments.

Back to Search