diagnosis and treatment of hospitalized patients with infections carries a significant cost and suggests potential benefits in reducing time to diagnosis.

PIN47 TREATMENT COSTS FOR UNCOMPLICATED MALARIA AT A SECONDARY HEALTH CARE FACILITY IN NIGERIA

Ezundu CC
Nnamdi Azikiwe University, Awka, Nigeria

OBJECTIVES: Malaria treatment in health care facility represents a standard practice in malaria case management. The study estimated the costs of treatment for uncomplicated malaria cases treated within 24 hours in the period. Non-hospitalized cases were estimated from a provider perspective, applying a standard costing procedure for outpatient visits and medications. The costs were estimated using a comprehensive cost and utilization approach, hospital associated costs of uncomplicated malaria episodes were estimated from a provider perspective, applying a standard costing procedure for outpatient visits and medications. The costs were estimated using a comprehensive cost and utilization approach combined with step-down methodology to calculate the final costs. Costs attributable to malaria treatment were calculated based on the proportion of uncomplicated malaria cases treated within the period. Non-hospitalized costs were estimated from financial and economic costs were estimated for uncomplicated malaria. All costs were calculated in local currency, converted to the US Dollars at the 2013 exchange rate.

RESULTS: The hospital spent a total annual economic cost of US$1,162 million ($US31,352.30) for the treatment of uncomplicated malaria, at US$34.66 per case. This represents about 20% of the hospital total expenditure within the year. Personnel accounted for over 81% of the expenditure as the dominant cost driver, followed by antimalarial drugs, 7.8%. Over 50% of outpatient visits were treated for malaria in the facility, leading to increased utilization of hospital resources. Changes in personnel costs, drug prices and malaria prevalence significantly impacted on the study results, indicating the need to improve efficiency in the hospital resource utilization.

CONCLUSIONS: Malaria treatment at the medical center constitutes a considerable amount of hospital expenditure, arising mainly from the cost of personnel and high proportion of treatment of uncomplicated malaria. For a more effective healthcare system, there is need for more efficient use of hospital resources to prevent wastages and reduce costs to the provider and consumer.

PIN48 ASSESSMENT OF THE COSTS AND OUTCOMES OF ANTIBIOTIC THERAPY FOR UNCOMPLICATED MALARIA IN A TERTIARY HOSPITAL IN HARARE, ZIMBABWE

Mafirakureva N1, 2, Haider S. 1, 2, Samp J.C. 3
1University of Zimbabwe, Harare, Zimbabwe, 2, RTI Health Solutions, Manchester, UK, 3, RTI Health Solutions, Research Triangle Park, NC, USA

OBJECTIVES: The objective of the review was to determine the most widely used estimates of United States (US) costs of different stages of liver disease in patients with hepatitis C virus (HCV) in cost-effectiveness analyses (CEA). METHODS: A systematic literature search using predetermined search terms was performed to identify English-language articles that report cost or CEA from 1995 to 2014. Full texts were obtained and reviewed to determine study eligibility on the basis of primary outcome criteria. All costs were presented in 2014 US dollars.

RESULTS: A total of 53 articles were eligible for review. In primary cost studies, two methods were generally used to derive the disease state costs: microcosting using treatment algorithms and unit costs; or statistical analyses of observational databases. The most widely used primary cost estimates in CEA s completed before 2011 were those derived using treatment algorithms by Bennett and colleagues in 1997. A CEA performed in 2012 by Gellin et al. reported updated resource use and costs for all the disease stages based on the Bennett study and added milder/moderate chronic HCV, compensated cirrhosis, and post-SVR health states. The most widely used primary cost estimates in CEA s completed after 2011 were obtained from a large database study by McAdam-Max and colleagues (2011). This study provides estimates for all liver stages but does not include subcategories for compensated disease. The estimates from the different sources were not comparable; for example, for cirrhosis and hepatocellular carcinoma Gellad estimated $745 and $45,728 per year while McAdam-Max estimated $2,584 and $50,658 per year, respectively.

CONCLUSIONS: There are many estimates of costs of HCV liver disease and these estimates can vary widely due to differences in treatment algorithms and patient characteristics. Understanding the differences in these estimates can aid in the selection of the most appropriate inputs for use in economic models.

PIN51 COST-EFFECTIVENESS ANALYSIS OF SOFOSBUVIR BASED COMBINATION THERAPIES VERSUS TELAPREVIR BASED COMBINATION THERAPIES FOR TREATMENT-NAIVE AND PRIOR TREATMENT RESISTANT PATIENTS WITH HEPATITIS C INFECTION

Gaitonde P1, Yerlikaya N.S. 2, Chirovu VV. 3, Shaya F 3
1University of Maryland, Baltimore, MD, USA, 2Hacettepe University, Ankara, Turkey, 3University of Maryland, Baltimore, MD, USA

OBJECTIVES: AASLD/IDSA have recently updated their treatment guidelines to include sofosbuvir-based therapy as recommended regimen for treatment-naive and previously treated patients with hepatitis C virus (HCV) genotype 1 infection. The purpose of this study is to compare the cost-effectiveness of different treatment therapies vs. peg-IFN and ribavirin (PEGIFN) among treatment-naive patients and compare treatment failure combinations with and without interferon among patients previously treated with PEGIFN. METHODS: Costs per sustained viral response (SVR) was performed using a decision tree. It was assumed that patients were equally likely to receive either treatment. The model contained clinical data from Phase III clinical trials for PEGIFN (T1), sofosbuvir triple therapy (T2) (NEUTRINO study), and sofosbuvir plus simeprevir and/or ribavirin (T3) (COSMOS study). Drug and medical costs were obtained from the National Average Drug Acquisition Costs Database (Medicare) and literature. Time horizon was 48 weeks for both analyses. RESULTS: Average among the treatment-naive was $78,749 for T1 arm ($52,589), $103,317 for T2 (91% SVR), and $147,386 for T3 (94% SVR). Among the pre-treated, the average cost was $142,862 for T2 (72% SVR) and $187,644 for T3 (94% SVR). Among the treatment-naive, an ICER of $553 and $719 per 1%SVR gain was obtained for T1 vs. T3 and T2 vs. T3, respectively. Among the pre-treated, an ICER of $2036 per 1%SVR was obtained for T3 vs. T1 and T2 vs. T3. In sensitivity analysis, no other factor but %SVR impacted incremental costs per responder. CONCLUSIONS: Although sofosbuvir-based combination without interferon was found to be the most expensive treatment it achieved the highest SVR rates among treatment-naive and pre-treated patients. The presented results can be used to make decisions by individual payers’ based on their willingness to pay threshold for treatments. The model also can be used to examine the cost-effectiveness of new therapies by relevant HCV patient subgroups.

PIN52 A COST-EFFECTIVENESS ANALYSIS OF PRE-EXPOSURE PROPHYLAXIS FOR HIV: A US PAYER PERSPECTIVE

Vasudev H1, Campbell JD2
1University of Colorado Denver, Aurora, CO, USA, 2University of Colorado Anschutz Medical Campus, Denver, CO, USA

OBJECTIVES: A 2010 randomized controlled trial, the first in the United States (US), was carried out to study the clinical effectiveness of pre-exposure prophylaxis (PrEP) among men-who-have-sex-with-men (MSM) population over a follow up of