OBJECTIVES: HCV infection in Egypt is one of the highest in the World. The objective was to describe treatment costs and factors associated with HCV infection in Egypt. The study also aimed to identify different treatment scenarios and their associated costs.

METHODS: The study was a cross-sectional descriptive study held in Egypt from 2016 to 2018. The study included patients with chronic hepatitis C infection who were treated in different hospitals in Egypt. The study measured the direct medical costs of treatment for HCV infection, including the costs of lab tests, medications, hospitalization, and other medical treatments. The study also assessed the factors associated with these costs, such as age, sex, and treatment duration.

RESULTS: The study included 100 patients with chronic hepatitis C infection. The average direct medical cost of treatment was $13,189-$45,424, with a range of $76,865-$248,095. The median cost was $153,133. The costs were significantly higher for males ($168,424) compared to females ($125,258). The costs were also higher for patients aged 40-49 years ($188,850) compared to patients aged 50-59 years ($107,390). The costs were significantly higher for patients who received interferon-based treatment ($177,620) compared to patients who received direct-acting antivirals ($55,970). The costs were also significantly higher for patients with cirrhosis ($209,000) compared to patients without cirrhosis ($107,000).

CONCLUSIONS: The study found that the direct medical costs of treatment for HCV infection in Egypt are very high, and they are significantly higher for certain patient characteristics, such as age, sex, and treatment type. The study also showed that the costs are significantly higher for patients with cirrhosis. Therefore, there is a need for more research to find ways to reduce these costs and improve the treatment outcomes for HCV infection in Egypt.
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 UNCOMPROMICATED MALARIA AT A SECONDARY HEALTH CARE CENTRE IN NIGERIA

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OBJECTIVES: Malaria treatment in health care facility represent an important cost in malaria case management. The study estimated the costs of treatment for uncomplicated malaria from a healthcare facility, to generate current information for appropriate decision making in resource or funding allocations for malaria treatment in and out of Nigeria. METHODS: Based on a comprehensive cost and clinical illness approach, hospital associated costs of uncomplicated malaria episodes were estimated from a provider perspective, applying a standard costing procedure for outpatient care. Hospital and recurrent expenditures were estimated using a cost-ingredient 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-hospital costs were estimated to be 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 N31,612 million (US$30,352.30) 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 45% of outpatient visits were treated for malaria in the facility, leading to increased utilization of hospital resources. Changes in personal costs, drug prices and malaria prevalence significantly impacted on the study results, indicating the need for improved 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 uncomplicated malaria. For a more effective healthcare system, there is need for more efficient use of hospital resource to prevent wastage and reduce costs to the provider and consumer.

PIN48 ASSESSMENT OF THE COSTS AND OUTCOMES OF ANTIRETROVIRAL TREATMENT IN ADULT OUTPATIENTS AT A TERTIARY HOSPITAL IN HARARE, ZIMBABWE

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OBJECTIVES: This study sought to estimate the average-outpatient cost of providing adult ART (ATR) at an urban hospital in Zimbabwe. Patients were assigned to any one of the following outcome categories based on their status at the end of the study period: in care and responding (IC), in care but not responding (NR), or no longer in care at study site (NC). Average cost per outcome category was estimated based on resource utilization, in 2013 US$. RESULTS: The overall annual retention in care was 93.3%. At the end of the first 12 months of ART care, 109 (90.8%) of the patients were IC, 7 (6.7%) patients were NC and 3 (2.5%) patients were NR. The average overall cost per patient initiated was US$446. All adverse events were structured as follows; outpatient visits (49.2%), medications (26.4%), laboratory tests (21.8%) and fixed costs (2.6%). The average cost to produce an IC patient was US$112, NR US$ 438 and NIC US$ 522. The average outpatient cost per patient initiated was USD $461. The costs contributed significantly in sustaining the study. Over 45% of outpatients visits were treated for malaria in the facility, leading to increased malaria treatment at the medical center constitutes a considerable amount of hospital expenditure, arising mainly from the cost of personnel and high proportion of uncomplicated malaria. For a more effective healthcare system, there is need for more efficient use of hospital resource to prevent wastage and reduce costs to the provider and consumer.

PIN49 AN ECONOMIC MODEL TO COMPARE LINEZOLID, VANCOMYCIN, AND TEOCIPROLIN FOR THE TREATMENT OF CONFIRMED METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS NOSOCOMIAL PNEUMONIA IN BRAZIL

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OBJECTIVES: To evaluate economic impact of linezolid (LZD) versus vancomycin (VAN) and teicoplanin (TEI) for treatment of confirmed methicillin-resistant Staphylococcus aureus (MRSA) nosocomial pneumonia (NP) in 14 participating Brazilian tertiary hospitals and public healthcare systems. METHODS: A 4-week decision model was conducted capturing 1st and 2nd line therapy. Published literature, local sources, and expert opinion were used as resource use data, such as efficacy, mortality, adverse events (AEs), treatment duration, and length of hospital/ICU stay. Brazil cost data was obtained from local published sources and micro-costing. Base-case analysis used 14-day treatment duration. In event of treatment failure/severe AEs on 1st-line therapy, the patient was switched to another therapy after 7 days. Costs were reported in reais, the Brazilian Real (R$). Scenario based sensitivity analyses were conducted. RESULTS: From private perspective, LZD was associated with lower costs (by R$5,760 and R$10,531), and greater overall survival success (by 2.7% and 15.3%) compared to VAN and TEI respectively, resulting in LZD ‘dominating’ both treatments. From public perspective, LZD costs (by R$3,011) and effectiveness (by 2.7%) were greater compared to VAN, resulting in an ICER of R$17,566 per successfully treated patient. But compared to TEI, LZD had lower costs (by R$2,246) and greater effectiveness (by 13.3%), with LZD being the ‘dominating’ treatment. Majority of treatment costs were related to hospital stay, primarily ICU (73% in private and 50% in public scenarios). Several scenarios were tested for treatment duration (7 or 14 days), and switch of therapy (at 5 or 10 days). Results for all scenarios were similar to the base case from public and private perspectives. CONCLUSIONS: From private perspective LZD was the cost-effective alternative to VAN and TEI for treatment of MRSA-infected NP, owing primarily to its higher clinical response rate. From public perspective, LZD can be considered cost effective since its ICER vs. VAN is within 2-3 times Brazil’s GDP per capita.

PIN50 SYSTEMATIC LITERATURE REVIEW TO IDENTIFY COST ESTIMATES OF LIVER DISEASE IN THOSE WITH CHRONIC HEPATITIS C VIRUS (HCV) IN THE UNITED STATES

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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 (CEAs). 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 pre specified inclusion and exclusion criteria. All cost estimates were assessed for 2014 values. 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: micro-costing using treatment algorithms and unit costs; or statistical analyses of observational databases. The most widely used primary cost estimates in CEAs completed before 2011 were those derived using treatment algorithms by Bennett and colleagues (2011). A CEA completed in 2012 by Gellad et al. generated updated resource use and costs for all the disease stages based on the Bennett study and added mild/moderate chronic HCV, compensated cirrhosis, and post-SVR health states. The most widely used primary cost estimates in CEAs completed after 2011 were obtained from a large database study by McAdam-Marx and colleagues (2011). This study provides estimates for all liver stages but does not include subcategories for decompensated disease. The estimates from the different sources were quite different; for example, for cirrhosis and hepatocellular carcinoma Gellad estimated $745 and $45,728 per year while McAdam-Marx estimated $5,928 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 study methodology. 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 OVER TREATMENT-NAIVE AND PRE-TREATED PATIENTS WITH HEPATITIS C INFECTION

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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 (HCV) genotype 1 infection. The purpose of this study was to compare the cost-effectiveness of the dosing regimens tested by varying treatment duration (7 or 14 days), and varying discontinuation/switch of therapy (at 5 or 10 days). Results for all scenarios were similar to the base case. Sensitivity analyses of PrSV rates among treatment-naive and pre-treated patients. The presented results were used to make decisions by individual payers’ based on their willingness to pay through public private partnerships. CONCLUSIONS: Although sofosbuvir-based combination without interferon can be considered cost effective since its ICER vs. VAN is within 2-3 times Brazil’s GDP per capita.