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

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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 from a healthcare facility, to generate current information for appropriate decision making in resource or funding allocations for malaria treatment in Nigeria. METHODS: Based on 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 care and resource utilisation were estimated using an 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 not collected. Total and average financial and economic costs were estimated for uncomplicated malaria. All costs were calculated in local currency, the need for periodic costing studies as a way of continually monitoring the costs resulting in LZD 'dominating' both treatments. From public perspective, LZD costs were NR. The average outpatient cost per patient initiated was USD $461. The costs were not collected. Total and average 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$1,325.30) 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 antimicrobial drugs, 7.8%. Over half 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 for improved efficiency in the hospital resource utilisation. 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 cases treated. 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 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 antiretroviral therapy (ART) at an urban care centre for the first year following ART initiation. METHODS: A retrospective, ingredients-based costing approach was implemented, as previously described in literature. Medical records for a convenience sample of 120 patients were reviewed 1 year after ART initiation. Subjects were defined as living with HIV and AIDS, as per diagnostic criteria. Costing was conducted back to inception of care, as previously described. All costs were converted to 2013 local currency using the exchange rate of 4.265 ZWD per USD. Costs were calculated for patients who were living with HIV and AIDS at ART initiation. Subjects 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 (NIC). Average cost per outcome category was estimated based on resource utilisation, 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 NIC and 3 (2.5%) patients were NR. The average outpatient cost per patient initiated was USD $461. The average cost to produce a patient in care and responding to ART represented 49.2% of the costs of the GDP per capita for Zimbabwe for 2013. This estimate excludes building and utility costs because they were unavailable, hence the actual average cost may be higher. CONCLUSIONS: These findings show that maintaining an outpatient-based ART is an expensive undertaking relative to the country’s GDP per capita. This underscores the need for periodic costing studies as a way of continually monitoring the costs and cost structures associated with caring for people living with HIV and AIDS, as this would aid in planning and decision-making.

PIN49
AN ECONOMIC MODEL TO COMPARE LINIZOLID, VANCOMYCIN, AND TEICOPHLOXAN 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 tertiary care and public healthcare systems. METHODS: A 4 week decision model was developed capturing 1st and 2nd line therapy. Published literature, local sources, and expert opinion were used as resource 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, patients were switched to therapy after 7 days. Costs were reported in Brazilian Real. Scenario based sensitivity analyses were conducted. RESULTS: From private perspective, LZD was associated with lower costs (by R$7,560 and R$10,551), and greater overall survival (by 2.7% and 11.3%) compared to VAN and TEI respectively, resulting in LZD ‘dominating’ both treatments. From public perspective, LZD costs (by R$3,211) and effectiveness (by 2.7%) were greater compared to VAN, resulting in an ICER of R$3,564 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 with varying lengths of therapy (from 7 to 14 days), adherence to treatment, 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 confirmed 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 peer review, inclusion or exclusion criteria. All costs were converted to 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: microeconomic costing 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 (2000) and by Dougher and colleagues (2000). In 2011, two studies reported 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 are those 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 not directly comparable, for example, for cirrhosis and hepatocellular carcinoma. CONCLUSIONS: Future studies should focus on expanding the differences in these estimates and add the most appropriate inputs for use in economic models.

PIN51
COST-EFFECTIVENESS ANALYSIS OF SOFOSBUVIR BASED COMBINATION THERAPIES VS. TREATMENT-NAÏVE AND PRE-TREATED PATIENTS WITH HEPATITIS C INFECTION

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OBJECTIVES: ASLID/LDSA have recently updated their treatment guidelines to include sofosbuvir-based therapy as recommended regimen for treatment-naïve and previously treated patients with hepatitis C (HCV) genotype 1 infection. The purpose of this study was to compare the cost-effectiveness of sofosbuvir-based combination therapies vs. peg-IFN and ribavirin (PEGIFN) among treatment-naïve patients and comparator treatment combinations with and without interferon among patients previously treated with PEGIFN. METHODS: Costs per sustained viral response (SVR) health states. The most widely used primary cost estimates in CEAs completed after 2011 are those 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 not directly comparable, for example, for cirrhosis and hepatocellular carcinoma. This study provides estimates for all liver stages but does not include subcategories for decompensated disease. The estimates from the different sources were not directly comparable, for example, for cirrhosis and hepatocellular carcinoma. This study provides estimates for all liver stages but does not include subcategories for decompensated disease. Conclusions: From public perspective, LZD can be considered cost effective since its ICER vs. VAN is within 2-3 times Brazil’s GDP per capita.