tion on hospital care was only collected for one season. More individualised estimates of hospitalisation costs may be obtained with patient characteristics such as gestational age and presence of BPD.

**PIN22**

**PHARMACOECONOMIC EVALUATION OF STREPTOMYCIN VERSUS ETHAMBUTOL AS PRIMARY ANTITUBERCULAR DRUGS IN LAGOS UNIVERSITY TEACHING HOSPITAL**

Suleiman IA, Tayo F

College of Medicine, University of Lagos, Lagos, Nigeria

Available resources are very for this research is limited, hence the need to be cost conscious. **OBJECTIVES:** The purpose of the research was to know which of the two antitubercular drugs (both of which are still actively used in Nigeria) is more cost effective in phase I treatment of tuberculosis and to influence decision making. **METHOD:** Cost Effectiveness Analysis was the applied tool for these methods, and the prescribed/dispensed antitubercular drugs between 1997 and 1999 were reviewed retrospectively. Relevant information such as diagnosis, prescribed/dispensed drugs, dosage, duration of therapy, physician’s remarks, and cost were obtained from patient case notes and dispensed prescriptions. These were used in conjunction with time and motion studies and standard cost accounting technique. The cost per defined daily dosage (DDD) was calculated, and the costs of drug/disposables acquisition and overhead costs were included in the analysis. The literature was reviewed for positive and negative consequences of the considered options. Outcome measure of effectiveness was improved in signs and symptoms of tuberculosis/eradication of Mycobacterium. A decision table was used to arrive at the effectiveness rating, which was compared using chi square analysis. **RESULTS:** The analysis showed that ethambutol tab is more cost effective than streptomycin inj, which is still widely in use. The cost/DDD of ethambutol was N4.00/unit effectiveness while that of streptomycin was N65.00/unit of effectiveness. The decision did not change when some variables were altered in favour of streptomycin inj. (the less cost effective option). Increasing the cost of ethambutol by several folds, increased the effectiveness rating of streptomycin to that of ethambutol etc., which did not change the conclusion. **CONCLUSION:** Streptomycin inj. should no longer be considered as a primary drug in the treatment of tuberculosis, which is still very common in Nigeria. However, the various contraindications/side effects of ethambutol such as optic neuritis need to be monitored for in patient. Economic evaluation of therapy is necessary to avoid trading-off of more cost effective therapeutic options.

**PIN23**

**PHARMACOECONOMIC EVALUATION OF ANTIBACTERIALS UTILIZATION IN PRIMARY, SECONDARY AND TERTIARY HOSPITALS IN DEVELOPING ECONOMY**

Suleiman IA, Tayo F

College of Medicine, University of Lagos, Lagos, Nigeria

The use of economic analysis is increasingly advocated by funding agencies to achieve efficient cost containment strategy. **OBJECTIVES:** To inform the use of antibacterials in chosen hospitals and to propose inclusion of economic evaluation of drug therapy in policy formulation and decision-making. **METHODS:** Cost Minimisation Analysis; the most applicable tool for generic equivalent drugs was used. This was compared in three health institutions. These include a tertiary, Lagos University Teaching Hospital (LUTH); a secondary, General Hospital Lagos (GHL); and a primary, Health Centre Harvey Road, Yaba (HCHR), as well as a community pharmacy outlet for prescriptions of GHL. Relevant information such as diagnosis, cost of drugs, dosage, duration of therapy among others were obtained from patient case notes for which antibacterials are the mainstay of therapy for the various hospitals. These were compared using student ‘t’ test. The outcome measure was eradication of bacterial infection by the respective antibacterials. **RESULTS:** The use of more expensive branded drugs is very rampant even when the generic equivalence is available. The difference in their cost/DDD is very significant (P < 0.05; n = 1,576 in LUTH, n = 1,200 in GHL, n = 900 in HCHR, n = 750 in the community pharmacy). For example, in LUTH, the cost/DDD of ciprofloxacin was N310 for branded product and N160 for generic. Also observed were some irrational combinations especially in the primary health centre. **CONCLUSION:** A form of economic evaluation of drug therapy is necessary for health policy and decision makers to be more informed on cost implication of their choices and trade-offs. Systematic appraisal of available options needs to be well understood in view of limited resources. Appropriate and timely intervention for sustainable improvement is mandatory for costs to be greatly minimised.

**PIN24**

**IMPACT OF INFLUENZA VACCINATION ON WORK PRODUCTIVITY IN A COLOMBIAN COMPANY: COSTS AND BENEFITS FOR THE EMPLOYER**

Tasset A1, Baron-Papillon F2, Rey E2, Follet A2

1Aventis Pasteur International, Lyon, France; 2Mapi Values, Lyon, France; 3Aventis Pasteur, Santafe de Bogota, Colombia

**OBJECTIVES:** To evaluate the impact of an influenza vaccination campaign: decrease of attack rates of
OBJECTIVE: In healthy working adults, it has been documented that vaccination programs may yield cost-savings by avoiding absenteeism and loss of productivity. However few studies provide an international perspective. The objective of this project is to develop a multinational measurement of the cost-benefit aspect of vaccination programs against influenza, typhoid fever and hepatitis A in an adult population working in various countries and industrial sectors. METHODS: A cost-benefit model has been developed in order to calculate the cost-benefit result of vaccination programs. The costs of the vaccination alternative, including associated immunization services are thus compared to the benefits i.e. avoided absenteeism and loss of productivity by preventing the diseases. Those benefits are represented by three different items being 1) Avoided loss of labor costs; 2) Avoided cost of replacement; and 3) Avoided loss of operating income. Companies published financial data from four countries (Australia, Turkey, Brazil and Philippines) have been sampled and gathered in order to yield an average cost-benefit result by country. A sensitivity analysis and break-even analysis have been performed on the main criteria involved in the calculation. RESULTS: Considering the three diseases, the results obtained show an average cost of diseases for 100 employees of US$11,086.81 per year. The net cost-savings per employee vaccinated and per year ranged from US$13.54 (in the Philippines) to US$80.17 (in Turkey). CONCLUSION: This predictive approach aimed at assessing the return on investment for companies in case of funding a vaccination program proposed to the employees. The simulations based on aggregated published financial data show a cost-savings specific to each country for different industrial sectors. It deserves further analysis on a larger sample of companies in other countries and industrial sectors.