COMPARISON OF COST-EFFECTIVENESS BETWEEN 9-MONTH ISONIAZID AND 2-MONTH RIFAMPICIN PLUS PYRAZINAMIDE FOR PREVENTION TO ACTIVE TUBERCULOSIS AMONG PEOPLE LIVING WITH HIV THAILAND

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ABSTRACT

Treatment of latent tuberculosis is needed to protect HIV-infected individuals against tuberculosis. In Thailand, 9-month Isoniazid (INH) preventive therapy among asymptomatic HIV-infected individuals are feasible and well-tolerated. However, because of problems with poor compliance due to long treatment, an alternative short-course tuberculosis preventive regimen is needed. In making a decision on which treatment should be standard, evaluating cost-effectiveness is one of the tools for making an informed decision to health care policy. This study proposes to assess cost-effectiveness of two different regimens from the perspectives of hospital and patient. Cost-effectiveness ration will be expressed as cost per achieving one HIV-infected person with completed treatment in two regimens of treatment of latent tuberculosis infection; i.e., 9-month INH and 2-month Rifampicin (RFP) plus Pyrazinamide (PZA) to prevent active tuberculosis. DESIGN: Multi-center randomized, two-arm, open-label controlled trial. SETTING: at Day Care Center, Chiang Rai, Thailand. PATIENTS: HIV-infected person with positive tuberculin skin tests (induration ≥ 5 mm). INTERVENTIONS: INH daily for 9 months and RFP plus PZA daily for 2 months. MEASUREMENT: Cost will be measured from both perspectives, i.e., patient and hospital. Effectiveness will be measured in terms of treatment completion. Cost-effectiveness analysis and incremental analysis will be performed. RESULT: The assessment of effectiveness of INH preventive therapy in term of treatment outcome was conducted for data exercise. The completion rates of INH preventive therapy from 1995-2001 in Phan, Mae Chan, Chiang Khong and Mae Sai hospital were 29.3%,
53.5%, 58.9% and 53.4% and the default rate were 55.8%, 30.8%, 37.1% and 40.8% respectively. The following factors were found to be associated with default: gender, day care membership and year of enrollment. **LESSONS LEARNED and RECOMMENDATION:** Organizational factors in hospital could have a great impact on the treatment outcomes of IPT program. These include how the hospitals generate the program especially follow up system, availability and adequacy of existing human resources and educational and training support health staff. These factors have to be assessed and support in order to maximize the hospital’s capacity to run the program before implementing the clinical trial research project. In addition, The result of this data exercise suggests that Day Care Center (DCC) might improve the completion rate of IPT. However, there is no well-established model of DCC in the study hospital, and lack of evaluation of each center. Therefore, the assessment of DCC performance and identify barriers and opportunity should be done before implementing the clinical trial research project in order to improve the completion rate of IPT and also comprehensive care for People Living With HIV/AIDS (PLWHA).