

Thesis Title Cost-Effectiveness Analysis of Anti-retroviral Drugs in HIV-Infected Patients

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ABSTRACT

The primary objective of this study is to compare cost-effectiveness of two anti-retroviral regimens, azidothymidine (AZT) and azidothymidine switch to didanosine (ddI), in HIV-infected patients. Moreover, both the treatment effect and side effects of AZT and ddI were also identified. Treatment effect was measured in terms of months without AIDS. Only anti-retroviral drug cost (direct cost) was collected and measured in terms of baht. Symptomatic patients who were not pregnant, not under 15 years old and first attended Bamrasnaradura Hospital from July 1, 1994 to June 30, 1995 were recruited in this study.

From 40,888 patients who first attended the hospital, 1,267 patients presented with complaints associated with HIV infection. Of these 1,267 patients, 105 (8.29%) were symptomatic patients. First-visit symptoms were oral candidiasis or hairy leukoplakia (53.33%), diarrhea(46.67%), cachexia (41.90%), and fever (28.57%). Only 27 (25.71%) symptomatic patients received anti-retroviral drug. Nineteen patients were assumed to continuously take anti-retroviral drug because they met the physician every appointment. In other words, 19 patients were compliant with therapy. One patient did not turn

into AIDS, so 18 patients were eligible for disease progression analysis. Fourteen patients received AZT (regimen1). Four of 18 patients switched from AZT to ddI because of anemia (3), nausea and vomiting (1).

Time to AIDS was 9.08 months (1.84-16.73) for AZT group compared with 15.51 months (10.95-17.95) for AZT switch to ddI group. It is statistically different with p-value < 0.05 at 95% CI. Anti-retroviral cost was 12,797.55 baht (2,593.92-23,576.88) and 28,520.14 baht (19,369.63-30,344.16) for AZT and ddI group respectively. The second regimen (ddI group) costs 2,445.19 baht per an extra month without AIDS.