

Cost-Utility Analysis of Outpatient Exercise Training after Coronary Artery Bypass Grafting

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Background and Purpose: A major challenge for all health care systems is to identify the most efficient use of finite resources available for health care. Economic evaluation is one strategy to assist decision-makers to make rational choices among alternative health care services. The purpose of this study was to examine the cost-utility of outpatient exercise training versus usual care for patients following coronary artery bypass grafting (CABG). **Methods:** First-time CABG patients from three medical centers were recruited and evaluated throughout Nov 1999 to Oct 2001. Forty-five patients who participated in supervised outpatient exercise training programs and 41 age-, gender-, and severity-matched controls with similar duration since surgery served as subjects of the study. A self-designed questionnaire was developed to estimate the direct and indirect costs in the following six months of all the subjects. Their medical history and hospitalization related data in the six months were collected and confirmed by chart review. The quality adjusted life year (QALY) data of our previous study was used to calculate the cost-utility. Chi-square and independent t-test were used to make group comparisons. **Results:** The basic data were similar in subjects of two groups except more persons in the exercise group had higher incomes. The estimated cost of eight-week exercise training was NT 31,106, while the extra expenses from hospitalization in control group was NT 10,542 per patient. Thus the incremental cost of exercise training was NT 20,564 per patient. Our previous study revealed QALY gained from exercise training were 0.069 year for environment domain, therefore the cost utility ratio was NT 298,029.0/QALY. **Conclusion:** Our results indicate that outpatient exercise training after CABG is an effective therapeutic intervention from the viewpoint of cost-utility. (FJPT 2005;30(1):12-20)

Key Words: CABG, Outpatient exercise training, Cost-utility

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