

Abstract

In order to prevent and control the possible influenza epidemic, among several other policies, CDC-Taiwan has also conducted the anti-viral drug pilot study. The pilot study aims the elderly (>65y/o) with influenza like illness (ILI) and institutional flu clustering to provide them the anti-viral drug Tamiflu when the illness starts within 48 hours. In order to evaluate the effectiveness of the use of anti-viral drug, we conduct the present study.

From December of 2003 to July of 2004, there were 1202 people being provided Tamiflu for treatment use. Among them 90.9% were provided during the flu season (December to March). Most Tamiflu cases were in local hospitals (44.9%), and regional hospitals (28.5%). There were only 14.2% and 12.4% were in medical center and others like clinics, respectively. 88.8% of Tamiflu cares were over 65 y/o.

Since it is very difficult to get proper matched control, we take advantage of the National Health Insurance Database, from which the National Health Research Institutes have produced 200,000 random samples with complete claim data. This data set was proved to be a representative of the Taiwan population. We sleeted those elderly (>65 y/o) ILI (considered as the control or baseline) and study their distributions. Among the controls, 80% ILI visits were in clinics, instead, 38.9% of cases (>65 y/o, Tamiflu users) were in medical centers. There were 6.66% of cases (>65 y/o, Tamiflu users) who had pneumonia within 14 days after the ILI starts, which is higher than the controls. We suspect the group having been provided Tamiflu was the more severe group. We also found that the subjects in the case group who expired almost all had underlying diseases, such as cardiovascular diseases, lung diseases, diabetes etc.

Since we were not able to obtain the data of appropriate matched control, the above result can not provide accurate evaluation of the effectiveness of the pilot study.

It is suggested that an intervention randomized control trial or a matched case-control study be planned in order to have more precise evaluation of the cost-effectiveness of the anti-viral drug used in the flu season.

Keywords : quality-Influenza epidemic prevention ; Anti-viral drug pilot study ; evaluation of the cost-effectiveness of Tamiflu