Abstract

It has been well known that no country can afford to provide all the medical care people demand for. Persistent growth in health care expenditures has been a political and economic issue in developed and developing countries, so dose China.

There have been many explanations as to increase in the health expenditures, such as aging population、case-mix、insurance and new medical technologies. Many health economists suggested that technology innovation is the main driving force of increasing medical costs. As Newhouse（1992）indicated a half or three quarters increasing health expenditures can be explained by the new medical technologies adoption.

Previous studies mostly focus on medical technology purchase, which does not shed much light to cost containment. Few analysis focus on the determination of medical technology adoption. Through literature review, this thesis illustrates the determinants technology adoption and how they affect medical expenditure. In doing so, we hope to provide information to help the government design appropriate technology regulation and cost-containment policy.

Based on literatures review, we hypothesis that exogenous shock affects physician's medical technology adoption. When fertility rate decline, the cesarean delivery rate obviously increased in the next year. Physician chose a more highly reimbursed treatment, cesarean delivery, in order to maintain their incomes. It was tested in 12,433 cases in the department of gynaecology and obstetrics at a Chinese hospital between year 2000 and 2006. There is a strong positive relationship between the cesarean delivery rate and the income effect.

Through a description analysis, some conclusion can be made. First, it is important to build up a more complete evaluation system to regulate the use and purchase of new technologies, even if they are cost-effective. Secondly, the regulation would be best implemented base on the clinical guidelines in order to reduce the symptom-less cesarean section delivery. Finally, reduction in the price differentials between new and old technologies would help control the reward to physician's "unnecessary" adoption of new and expensive technologies.

Key words: New medical technology， Adoption costs， Supplier-induced demand