PCN33

USING DISCRETE CHOICE EXPERIMENTS TO ESTIMATE THE WILLINGNESS TO PAY FOR CANCER TREATMENT IN KOREA: A GENERAL POPULATION STUDY
By C. Hallym University, Chungcheong, South Korea

OBJECTIVES: This study, using DCE method, figures out the characteristics of the decision-making for cancer treatment and investigates the attributes affecting the respondents’ choice. It also ascertain marginal willingness to pay and relative preferences for cancer treatment among the general population. METHODS: In the survey, the respondents are asked to choose more than one discrete choice option, resulting in multiple observations for each individual. For each pair-wise comparison of choice set, the respondent will make a choice among three alternatives; A, B, or opt out. Thus, the nested-logit model using full maximum likelihood allows us to empirically estimate multi-levels of dependent variables. For the robustness check of our empirical results, we try considering the nature of distribution of error terms in the utility function in several ways. The key assumption of logit models is the independence of irrelevant alternatives (IIA), which results from the assumption that other alternatives are independent. The validity of IIA assumption can be simply conducted by a Hausman-McFadden test. We also consider an alternative specification where error terms are independently, but not identically distributed. And finally stand errors are calculated by using bootstrapping and compared to the previous results. RESULTS: In this DCE study, evidence of reliability was found at both input and output level. The estimates of MWTP between survival rate and monthly insurance premium and MTWP between total treatment costs and monthly insurance premium, by employing “Hybrid Conditional Fixed Effects Logit Model” to figure out the existence of heterogeneity of any observed and unobserved components, are reflecting reasonable range of 817 KRW–1324 KRW, and 23,690 KRW–38,139 KRW, respectively. CONCLUSIONS: Compared to female counterparts, male respondents have higher MWTP of monthly insurance premium for two related attributes. Besides, currently married respondents, with higher income, and higher educational attainments have more MWTP compared to their respective counterparts.

PCN34

USING DISCRETE CHOICE EXPERIMENTS TO ESTIMATE THE MARGINAL WILLINGNESS TO PAY OF INSURANCE PREMIUM FOR LIVER CANCER TREATMENT IN KOREA
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OBJECTIVES: This study, using DCE method, figures out the characteristics of the decision-making for liver cancer treatment and investigates the attributes affecting the respondents’ choice. It also ascertains marginal willingness to pay and relative preferences for liver cancer treatment among the general population of 600 respondents in Korea. METHODS: In the survey, the respondents are asked to choose more than one discrete choice option, resulting in multiple observations for each individual. For each pair-wise comparison of choice set, the respondent will make a choice among three alternatives; A, B, or opt out. Thus, the nested-logit model using full maximum likelihood allows us to empirically estimate multi-levels of dependent variables. For the robustness check of our empirical results, we try considering the nature of distribution of error terms in the utility function in several ways. The survey questionnaire included four attributes associated with liver cancer in Korea (incidence rate, survival rates, treatment costs, and monthly insurance premium), socio-economic status, antecedent variables, and questions regarding risk averseness and subjective health evaluation. RESULTS: The estimates of MWTP between survival rate and monthly insurance premium and MTWP between total treatment costs for liver cancer and monthly insurance premium, by employing “Hybrid Conditional Fixed Effects Logit Model” to figure out the existence of heterogeneity of any observed and unobserved components, are reflecting ranges of 212 KRW–294 KRW and 348 KRW–477 KRW, respectively. CONCLUSIONS: Compared to female counterparts, male respondents have higher MWTP of monthly insurance premium for two related attributes. Besides, married respondents, with higher education have more MWTP compared to their respective counterparts. One interesting point is that MWTP of high income group is lower than that of low income counterparts. This might be related to a lower alcohol consumption of high incomers who are less prone to liver cancer compared to low incomers.

PCN35

PRIMARY HEPATOCELLULAR CARCINOMA PATIENTS’ REPEATED MEDICAL UTILIZATION AND EXPENDITURE FOR CONFIRMATION IN TAIWAN
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OBJECTIVES: Hepatocellular carcinoma is one of the most prevalent cancers in Taiwan. Since Taiwan’s National Health Insurance (NHI) system neither prohibits patients from choosing health-care facilities nor limited number of outpatient visits. Therefore, patients being diagnosed as having hepatocellular carcinoma may seek second or even third doctor to confirm their condition. Thus, the purpose of this study was to examine the effects of disease confirmation behavior on the medical utilization and expenditure for patients with hepatocellular carcinoma. METHODS: Data came from the Longitudinal Health Insurance Database, which consisted of one million subjects of randomly selected from the entire NHI enrollee profile for 2003 to 2007. We selected patients with hepatocellular carcinoma by using the ICD-9-CM codes (155, 155.0, and 155.2). Medical utilization and expenditure of those patients within 5 months after first being diagnosed as having hepatocellular carcinoma were extracted from the data set. RESULTS: There were 1282 new hepatocellular carcinoma patients in our sample and 258 patients (20.12%) were identified as having the behavior of repeated disease confirmation. Total repeated physician fee and repeated examination were NT$1,272,763 and NT$3,783,983, respectively, (US$1 = NT$31.86) The expenditure of diagnosis in the first repeated confirmation hospi Consultant in Medical Oncology, and Assistant Director for Clinical Research, Johns Hopkins Singapore treatment was higher than that of first-diagnosis hospital (p < 0.01). The expenditure was highly related to having Charlson comorbidity index score 2 or higher, received chemotherapy, embolization, surgical operation and confirmation in medical centers. CONCLUSIONS: Within 3 months after first time being diagnosed, 20.1% of hepatocellular carcinoma patients used repeated medical services to reconfirm their disease. The expenditure of examination in the repeated visit was higher than that of the first time being diagnosed. Further investigation is needed to compare the long-term health status of patients with and without repeated confirmation behavior.

PCN36

DRUG UTILIZATION AND PRICE TRENDS OF ORAL-CHEMOTHERAPY MEDICATIONS IN MEDICAID 1991–2008
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OBJECTIVES: Numerous oral chemotherapies have been approved and widely used for the treatment of different cancers. The objective of this study is to examine drug utilization and price trends for oral chemotherapies in US Medicaid programs. METHODS: A total of 18 oral anti-cancer drugs were included in this research. A retrospective, descriptive time-series analysis was performed using the National Medicaid pharmacy claims database from 1991 to 2008. The quarterly prescription numbers and reimbursement amounts were calculated over time by summing data for individual drug products. The quarterly pre-prescription reimbursement as a proxy for drug price was computed for the price of each oral chemotherapy drug. RESULTS: Total oral chemotherapy prescriptions increased from 176,000 in 1991 to 259,000 in 2004. For individual drugs, the two top-selling drugs were Vesnaold® and Hydrea® in terms of prescription numbers. In 2008 the number of prescriptions dropped to 164,535 due to the implementation of Medicare Part D, and increased to 188,689 in 2008. Expenditure for oral chemotherapy drugs increased from $9.3 million in 1991 to $112.3 million in 2003 then dropped to $100 million in 2008. Medicaid expenditure for oral anti-cancer drugs reached to the peak in 2005 quarter 4, which was almost $29 million, then the expenditure dropped to $26.5 million in 2008 quarter 4. Average oral chemotherapy drug payment per prescription also increased dramatically from $1269 in 1991 to $14,297 in 2008. The price of newer oral chemotherapies is more expensive than older ones, and increased over time regardless other brands’ competitions. CONCLUSIONS: Increased utilization of oral chemotherapy drugs was paralleled with its increased expenditure, which may be due to their efficacy and safety profiles. Increased price for oral chemotherapies may be due to biomarkers specifica
tions with limited patient pool or the shrink demand.

PCN37

GAUGING THE ROLE OF HTA IN REIMBURSEMENT DECISION-MAKING ACROSS SEVEN MARKETS IN ASIA-PACIFIC
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OBJECTIVES: HTA is at different stages of development across the Asia-Pacific region, from the highly developed system in Australia at one extreme to China at the other, where the impetus to formalise HTA exists but guidelines and a dedicated agency do not. Understanding the weight of HTA as a driver of reimbursement decision-making both now and in the next 5 years is crucial for informing reimbursement strategy. METHODS: A total of 20 HTA reviewers and academic health economists were interviewed across Australia, China, Korea, Malaysia, the Philippines, Taiwan and Thailand to understand the parameters of the HTA system, the importance of different stakeholders within the process and the decisions influenced by HTA. RESULTS: HTA systems within Asia-Pacific exist at all stages of the HTA development continuum. At one end sit two single national payer systems, Australia and Korea, in which demonstration of cost-effectiveness is a formal prerequisite for reimbursement. At the other extreme sit China and Malaysia in which no formal role for HTA yet exists, although the speed and direction of HTA development is likely to differ between sit the Philippines, Taiwan and Thailand where the role of HTA is becoming more formalized, albeit largely as one among several criteria in decision-making. CONCLUSIONS: HTA is developing rapidly within the markets we considered, rendering the submission of economic evidence mandatory in most markets. But for a role for cost-effectiveness evaluation does not always translate into cost-effectiveness being the basis for decision-making. Understanding the nuances of where HTA sits in the reimbursement system and how it is applied in practice in each market is essential for maximizing the possibility of favorable reimbursement.