**Cost-minimization analysis of capecitabine for advanced gastric cancer in Taiwan**

**BACKGROUND**

- In Taiwan, gastric cancer is the fifth most prevalent cancer and the fifth most common cause of cancer-related mortality. It is reported that there were 2490 gastric cancer-related deaths in 2005 and 2398 in 2006. In Taiwan, gastric cancer is the fifth most prevalent cancer in men and the fifth most common cause of cancer-related deaths in both 2005 and 2006. Among these patients with newly diagnosed advanced gastric cancer, 58% undergo surgery while those with incurable, unresectable, or metastatic disease, chemotherapy is the only beneficial treatment option.

- 5-Fluorouracil (5-FU) is considered the most active single agent in chemotherapy for gastric cancer.

- In a randomized phase III trial (POL2002), the oral fluoropyrimidine capecitabine (Xeloda) in combination with carboplatin (XP) was found to be safe and effective compared to 5-FU plus cisplatin (FP) in previously untreated patients with advanced or metastatic gastric cancer (AGC).

**OBJECTIVE**

- The objective of this study was to develop a pharmacoeconomic model to assess costs derived from XP or FP for the treatment of AGC in Taiwan from a payer (National Health Insurance [Bureau of National Health Insurance (BNHI)]) perspective.

**METHODS**

- A cost-minimization analysis was undertaken by applying clinical outcomes and medical resource utilization (MRU) retrieved from the phase III trial by Kang et al.

**RESULTS**

- Chemotherapy drug cost was estimated to be higher for XP (NT$515,311) than for FP (NT$487,014) (Table 6; Figure 2).

- However, these cost estimates were offset by differences in chemotherapy administration costs (NT$41,904) between the two arms (Table 5).

- This is a result of the FP regimen needing repeated doctor visits for monitoring and is reduction in costs associated with oral administration of drug.

**CONCLUSIONS**

- Clinically and practically, capecitabine demonstrates equivalent efficacy (with trend for superiority), with comparable drug costs to existing 5-FU i.v. administration compared with existing 5-FU i.v.

- Replacing FP by XP would reduce health care expenditures and improve health outcomes in Taiwan.

- This cost-minimization analysis of capecitabine for AGC demonstrates considerable cost-saving potential for patients and the health care payer.

- From this paper perspective, Taiwan BNHI, XP is a cost-saving solution compared with FP in the treatment of AGC in Taiwan.

**REFERENCES**
