

# Drug utilization of Gastrodin injection on the treatment of dizziness and vertigo: an analysis using electronic medical records in China

Yunfeng Lai<sup>1</sup>, Wei Li<sup>2</sup>, He Zhu<sup>2</sup>, Ruoning Wang<sup>2</sup>, Chunying Zeng<sup>2</sup>, Sheng Han<sup>2</sup>, Honghao Shi<sup>3</sup>, Hao Hu<sup>3</sup>

<sup>1</sup> School of Economics and Management, Guangzhou University of Chinese Medicine, Guangzhou, China

<sup>2</sup> International Research Center of Medical Administration, Peking University, Beijing, China

<sup>3</sup> State Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Science, University of Macau, Macao

## Objective

Gastrodin injection is one common treatment for dizziness and vertigo in clinical practice, but without a standardized guide. This study aimed to investigate the utilization of Gastrodin injection for patients with dizziness and vertigo in real-world practice in China.

## Methods

Systematic Data were extracted from the hospital information system from 131 hospitals over China, from January to December 2018. Patients who were diagnosed as dizziness and vertigo and took Gastrodin injections in clinical treatment were identified. The Gastrodin injection fees per patient were analyzed and compared by gender, regions, and hospital levels through ANOVA analysis.

## Results

- 7,868 patients were included.
- There were eight brands of Gastrodin injection used in clinical practice.
- Tian Xuan Qing was the main brand (n=7,255), which accounted for 94.75% drug fees of all Gastrodin injection.
- The average Gastrodin injection fees of males (359.27 CNY) were higher than those of females (353.58 CNY) without statistical significance (P=0.124).
- Most of patients were from eastern (n=3,482) and western (n=3,045). The average Gastrodin injection fees of eastern, western, middle, and northeast were 365.26 CNY, 349.26 CNY, 343.62 CNY, and 368.19 CNY, respectively, with statistical significance (P=0.000).
- Most of the patients were from tertiary hospitals. The average Gastrodin injection fees of tertiary hospitals, secondary hospitals, and primary hospitals were 357.80 CNY, 303.88 CNY, and 397.86 CNY, respectively, with statistical significance (P=0.000).

## Conclusions

The utilization of Gastrodin injections for dizziness and vertigo in China was varied among regions and hospital levels. Future efforts need to promote the cost-effective utilization of Gastrodin injection for dizziness and vertigo.