

Background and Objectives

- Gastroesophageal reflux disease (GERD) is defined by recurrent and troublesome heartburn and regurgitation or GERD-specific complications.¹
- The commonly reported symptoms are heartburn and regurgitation of gastric contents in the oropharynx.¹
- Globally, it affects 20% of the adult population in high-income countries.²
- In China, GERD has a prevalence of 4.2%, causing troublesome symptoms and economic strain with direct and indirect costs that adversely impact patients' quality of life.³
- If the symptoms are left untreated there is a potential risk of esophageal adenocarcinoma associated with GERD.⁴
- There has been a rising trend in the prevalence of this disease and the treatment costs are also rising, therefore, understanding the economic burden is essential.

Objective:

- To evaluate the economic burden of GERD patients in China by collecting data on the cost and utilization of medical resources.

Methods

Study design: Retrospective observational study.

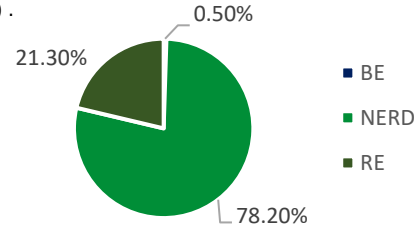
- Data of patients diagnosed with GERD were retrieved using electronic medical records of 2 hospitals in China from January 2015 to December 2017.
- The medical resource utilization and economic burden of GERD patients was analyzed.
- Patients were categorized into non-erosive reflux disease (NERD), reflux esophagitis (RE) and Barrett's esophagus (BE) on the basis of endoscopic assessment report.
- The average number of annual visits, average medication cost and average diagnosis cost of these groups were quantitatively described.

Patient selection criteria:

- Outpatients of all ages with a diagnosis of GERD including NERD, RE and BE.
- Patients were excluded if their primary (first listed) diagnosis was not GERD according to the International Classification of Diseases and Related Health Problems 10th Revision (ICD-10).

Results

- A total of 12,658 GERD patients were included.
- Among them, 22.7% of patients underwent gastroscopy, of which, NERD patients accounted for the highest proportion (78.2%), followed by RE patients (21.3%) and BE patients (0.5%) (Figure 1).



BE: Barrett's esophagus; GERD: gastroesophageal reflux disease; NERD: non-erosive reflux disease; RE: reflux esophagitis

Figure 1: Subtype of GERD diagnosed by endoscopic examination

- For NERD, RE, BE and GERD patients, the average number of annual visits were 1.23, 1.38, 1.36, and 1.16 times, respectively (Table 1).
- Similarly, the average costs for medication per visit were CNY 95.52, CNY 149.85, CNY 192.76, and CNY 206.91, respectively (Table 1).
- The average investigation costs were CNY 790.57, CNY 885.03, CNY 1117.94, and CNY 462.71, for NERD, RE, BE and GERD patients, respectively (Figure 2).

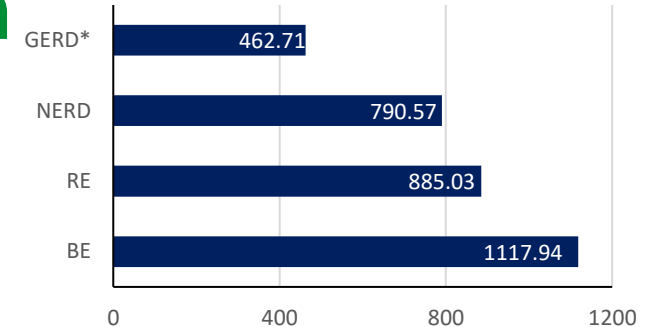
Table 1: Number of visits and the average medication cost per visit

Variable	NERD (N=2249)	RE (N=613)	BE (N=14)	GERD [#] (N=12658)
Average number of annual visit (means±SD)	1.23±0.58	1.38±0.66	1.36±0.50	1.16±0.53
Average medication costs per visit* (means±SD)	95.52±133.73	149.85±171.61	192.76±216.97	206.91±179.70

*in Chinese renminbi (CNY)

[#]Total population, including patients who underwent gastroscopy and those who did not

BE: Barrett's esophagus; GERD: gastroesophageal reflux disease; NERD: non-erosive reflux disease; RE: reflux esophagitis



*Total population, including patients who underwent gastroscopy and those who did not
BE: Barrett's esophagus; GERD: gastroesophageal reflux disease; NERD: non-erosive reflux disease; RE: reflux esophagitis

Figure 2: Average investigation cost per visit, CNY

Conclusion

- The findings of our study showed that with the severity of the disease, the number of medical visits and expenses have a tendency to increase, which deserves clinical attention.

Disclosure

- The study was funded by Takeda Pharmaceutical Company Ltd.
- Yanan Sheng and Li Xie are employees of Takeda (China) International Trading Co. Ltd. and Li Xie holds Takeda stock/stock options.

Acknowledgments

- All of the authors have contributed significantly to the collection and analysis of data, have reviewed and edited the poster, and have agreed to its content and submission for publication.
- The authors were fully responsible for all content and editorial decisions.

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