U.S. Surgical Specialist Practice Patterns in the Management of Gastroesophageal Reflux Disease

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OBJECTIVE

- Gastroesophageal reflux disease (GERD) is the most common gastrointestinal disorder diagnosed in the outpatient setting in the United States, with a prevalence of 18.1%-27.8%[1]
- Older data suggest differences in diagnostic and treatment patterns for GERD across varying specialties[2-4]
- This study examined differences in diagnostic practices for new patients with GERD in ambulatory surgical specialist settings

METHODS

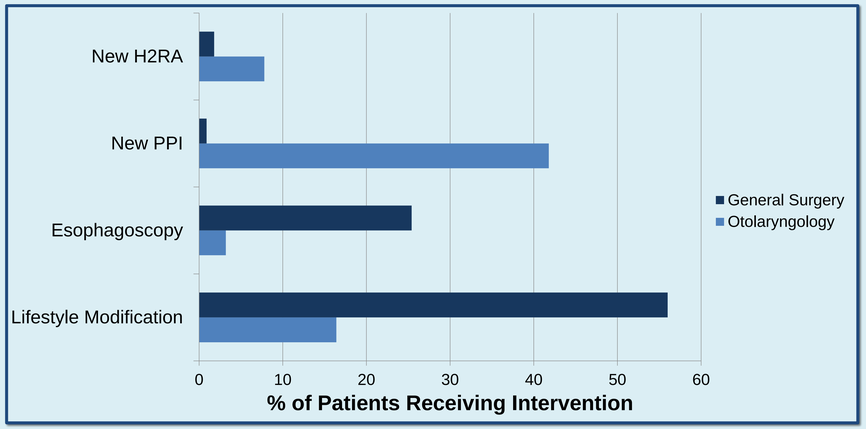
- Retrospective cohort study of the 2006-2010 National Ambulatory Medical Care Survey (NAMCS)
- Study cohort comprised new patients diagnosed with GERD in US otolaryngology and general surgery outpatient clinics
  - International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnostic codes 530.11, 530.81, and 787.1
- Descriptive analysis of baseline demographic and medical characteristics of eligible patients
  - Patient age, sex, race, insurance status, and number of chronic conditions
  - Geographic area of visit
  - Surgeon specialty
  - Nationally representative estimates obtained by survey weights
- Comparison of practice patterns within each clinical setting using chi-squared tests
  - Use of diagnostic upper gastrointestinal endoscopy: esophagoscopy or esophagogastroduodenoscopy (EGD), identified using ICD-9-CM procedure codes 42.23, 42.24, 45.13, 45.14, and 45.16
  - Lifestyle modification counseling: diet/nutrition, stress management, tobacco use/exposure, and weight reduction
  - New prescriptions for proton pump inhibitors (PPI) and H_2-receptor antagonists (H_2RA), identified using Multum Lexicon Plus® (Cerner Multum, Inc., Denver, CO) codes
- Stata 12.1 (StataCorp LP; College Station, TX) for all analyses

TABLE

Patient Characteristic or Intervention	Value
Age, years (mean ± standard deviation)	52.4 ± 1.8
Female sex	67.3%
White race	85.7%
Number of concurrent chronic diseases[a]	
None	54.6%
1	19.1%
≥2	25.1%
Surgical specialist	
Otolaryngologist	65.4%
General surgeon	34.6%
Patients receiving any lifestyle counseling	30.1%
Diet/nutrition	28.5%
Stress management	None reported
Tobacco use/exposure	7.3%
Weight reduction	6.3%
Patients undergoing upper GI endoscopy	10.9%
Patients receiving any new GERD prescriptions	32.1%
PPI	27.6%
H_2RA	5.7%

Legend: GI = gastrointestinal, H_2RA = histamine-2 receptor antagonist, PPI = proton pump inhibitor.
[a] Approximately 1.3% of patients had no available data on the number of chronic diseases.

FIGURE



RESULTS

- 100 patients unweighted; 1,582,391 weighted
- All adult patients
- Typical patient was middle-aged white female
- Two-thirds of patients were seen by otolaryngologists
- Nearly one-third of patients received some sort of lifestyle modification intervention, most commonly diet/nutrition counseling
- Slightly more than 10% underwent upper gastrointestinal endoscopy
- One-third received a new prescription for GERD (PPI or H_2RA)
- Significant differences in practices were found between otolaryngologists and general surgeons across several interventions
- Otolaryngologists prescribed new GERD medications (47.8% vs. 2.7%, p<.001), including PPIs (41.8% vs. 0.9%, p<.001), more frequently
- General surgeons provided health education more frequently (56.0% vs. 16.4%, p=.048)
- General surgeons also conducted upper gastrointestinal endoscopy more often (25.4% vs. 3.2%, p=.0015)

CONCLUSIONS

- Otolaryngologists accounted for nearly two-thirds of new GERD patient visits to US surgeons
- Significant differences in GERD diagnostic practices exist between otolaryngologists and general surgeons

POLICY IMPLICATIONS

- Diagnostic practice variation may reflect underlying differences in surgical training and scope of practice, as well as differing expectations for patients visiting a given specialty
- Further research is required to explore these issues, as well as potential differences in treatment patterns outside of the ambulatory clinic setting

KEY REFERENCES

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