Gastroesophageal Reflux Disease: A Need for Guidelines for the Primary Care Physician

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Abstract

Background: Guidelines are important for keeping family physicians informed of the constant developments in many fields of medicine.

Objectives: To compare the knowledge of gastroenterologists and family physicians regarding the diagnosis and treatment of gastroesophageal reflux disease in order to determine the need for expert guidelines.

Methods: A 25 item questionnaire on the definition, diagnosis and treatment of GERD was presented to 35 gastroenterologists and 35 family physicians. Each item was rated on a four point scale from 1 = highly recommended to 4 = not recommended. A voting system was used for each group on separate occasions. The proportions of correct answers according to the level of recommendation were compared between the groups.

Results: The groups' responses agreed on only 4 of the 25 items; differences between the remaining 21 were all statistically significant. For 14 items, 70% of the gastroenterologists chose the grade 1 recommendation, whereas more than 70% of the family physicians chose mostly grade 2.

Conclusions: The gap in knowledge on gastroesophageal reflux disease between gastroenterologists and family physicians is significant and may have a profound impact on diagnosis and treatment. Clear and accurate guidelines may improve patient evaluation in the community.

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The ongoing and significant advances in science and medicine have rendered it almost impossible for even the most talented primary care or family physician to have a comprehensive in-depth knowledge of all areas relevant to their practice. Thus, the formulation of expert standardized guidelines is needed, especially when solid prospective studies with clear conclusions are not available or the management approach is variable or unclear. A good example is gastroesophageal reflux disease, which has a prevalence of 4–7% in the western world [1]. Though its early identification and prompt treatment can have an enormous impact by saving lives and money, the current increase in cardiac and lower esophageal adenocarcinoma may point to an increase in GERD prevalence or to a high rate of incorrect diagnosis and treatment failure [2].

The aim of the present study was to compare the knowledge of gastroenterologists and family physicians regarding the diagnosis

and treatment of GERD in order to determine the need for expert guidelines.

Methods

Twenty-five carefully chosen statements and recommendations concerning GERD definition, diagnosis and treatment were chosen [Table 1]. The Genval guidelines [3] and a workshop of the Israel Gastroenterology Association supplied the scientific reference. Five statements referred to the clinical picture, seven to the role of endoscopy and biopsy, four to the role of pH monitoring and other

Table 1. Statements and recommendations

1.	Heartburn is the most prevalent symptom of GERD (> 75%).
2.	The clinical picture has high sensitivity and specificity for diagnosis.
3.	PPIs improve dyspepsia slightly, but significantly when part of GERD.
4.	The clinical picture with positive omeprazole test is the most sensitive for diagnosis.
5.	Quality of life is important for evaluation, and a treatment target.
6.	Gastroscopy should be performed in the presence of alarm symptoms.
7.	When maintenance treatment is needed, gastroscopy should be performed at least once.
8.	In esophagitis grades A & B, the clinical picture is an indication for therapy.
9.	In esophagitis grades C & D, endoscopy will validate healing.
10.	Biopsy has no importance for GERD or NERD diagnosis.
11.	Biopsy is essential for diagnosis, treatment indication and follow-up in Barrett's esophagus.
12.	In Barrett's esophagus, biopsy is needed every 2–3 years, 4 quadrant, every 2 cm from z-line.
13.	Negative pH monitoring does not exclude GERD.
14.	pH monitoring at maximal treatment may determine reason for failure.
15.	X-ray has no role in the diagnosis.
16.	Omeprazole test has a high sensitivity and specificity.
17.	In most NERD patients, esophagitis will not develop.
18.	Relapse occurs within 6 months of cessation of treatment in most patients.
19.	PPIs are the most effective primary and maintenance therapy.
20.	Treatment efficacy: PPI > low dose PPI > H2 > antacids.
21.	Step-down therapy with PPI is the best primary therapy.
22.	Empiric therapy with PPI should be used for GERD without alarm symptoms.
23.	Empiric therapy with PPI should be used for mild to moderate GERD without alarm symptoms.
24.	NERD or esophagitis grade A & B should be treated for 2–4 weeks with PPI, decrease dose or stop, start on relapse.
25.	Esophagitis grade C & D: healing validation and maintenance therapy with PPI.

Esophagitis grades A,B,C,D = according to Los Angeles criteria [8].

PPI = proton pump inhibitor, NERD = negative endoscopy reflux disease

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GERD = gastroesophageal reflux disease

diagnostic tests, and nine to the disease's natural history and treatment options.

The study group comprised 35 Israeli Board-certified gastroenterologists, including 20 heads of gastroenterology units in different hospitals in Israel, and 35 family physicians. The groups were asked on two different occasions to vote for each statement or recommendation, and to choose one of four grades: 1 = highly recommended, 2 = recommended, 3 = equivocal, 4 = not recommended.

For voting we used an automatic system that computed and saved the results. There were no lectures or other education sessions for the family physicians before the voting, which took place during a session of the Annual Meeting of the Israel Association of Family Medicine. The results of the gastroenterologists' vote were unknown to the family physicians.

The results of the two groups' voting were compared (comparison of the proportions of correct answers, according to the level of recommendation). $P < 0.05$ was considered statistically significant.

Results

The two groups completely agreed on 4 items and disagreed on 21 [Table 2, Figures 1 and 2]. Fourteen items were rated 1 (highly recommended) by more than 70% of the gastroenterologists, compared to 2 items rated 1 by more than 70% of the family physicians. The gastroenterologists chose a clear stand on most of the issues (such as voting for grade 1 or 4), whereas the family physicians tended to opt for the less definitive grades 2 or 3. The differences between the groups were most pronounced in the votes for statements and
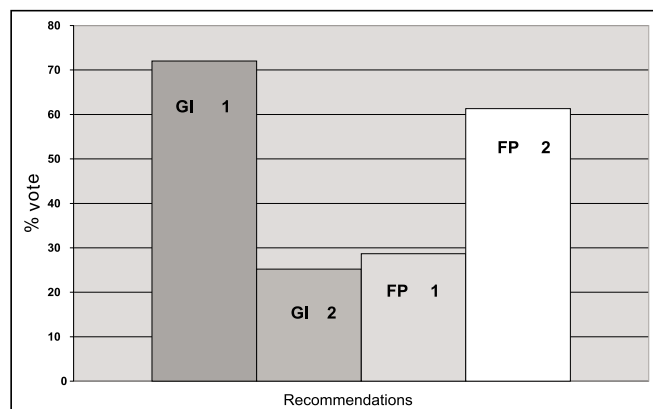
Table 2. Comparison between the responses of the gastroenterologists (n = 35) and the family physicians (n = 35); proportion of grade 1 recommendations

Item	GIs	FPs	Difference	SE of difference	95% CI	z	P
1	0.811	0.205	0.606	0.12	0.372–0.840	4.832	0
2	0.757	0.189	0.567	0.119	0.333–0.901	4.509	0
3	0.89	0	0.89	0.119	0.657–1.123	7.251	0
4	0.97	0.66	0.31	0.099	0.128–0.492	3.032	0.002
5	0.96	0.17	0.79	0.119	0.558–1.022	6.426	0
6	1	0.1	0.9	0.119	0.667–1.133	7.328	0
7	0.724	0	0.724	0.115	0.499–0.949	6.054	0
8	0	0.03	-0.03	0.029	-0.087 to 0.027	0.049	0.961
9	0.68	0	0.68	0.113	0.458–0.902	5.753	0
10	0.69	0.56	0.13	0.116	-0.097 to 0.357	0.876	0.381
11	1	1	0	0	0–0	99.999	0
12	0.42	0	0.42	0.097	0.229–0.611	4.02	0
13	0.91	0.84	0.07	0.079	-0.085 to 0.225	0.524	0.6
14	0.37	0	0.37	0.093	0.188–0.552	3.678	0
15	0.765	0.398	0.367	0.118	0.136–0.598	2.87	0.004
16	0.722	0.441	0.281	0.118	0.05–0.512	2.141	0.032
17	0.588	0.265	0.323	0.118	0.091–0.555	2.49	0.013
18	0.538	0.172	0.366	0.114	0.142–0.590	2.95	0.003
19	0.911	0.714	0.197	0.093	0.014–0.380	1.806	0.071
20	0.865	0.562	0.303	0.108	0.091–0.515	2.539	0.04
21	0.8	0.387	0.413	0.117	0.383–0.643	3.274	0.01
22	0.97	0.24	0.73	0.117	0.501–0.959	6.002	0
23	0.724	0	0.724	0.115	0.499–0.949	6.054	0
24	0.61	0.24	0.37	0.118	0.138–0.602	2.889	0.004
25	0.429	0	0.429	0.098	0.237–0.621	4.081	0

GIs = gastroenterologists, FPs = family physicians

recommendations dealing with diagnosis, with P values ranging from 0.000 to 0.002. Differences in the items on treatment were smaller but still significant, with P values of 0.01–0.03.

Agreement was achieved on four statements, namely: that the clinical picture is an indication for therapy, that biopsy is not important for diagnosis, that a negative result of pH monitoring cannot exclude GERD, and that proton pump inhibitors are most effective [Table 2].

Discussion

The definition of guidelines may be the transposition of evidence into clinical care, or the application of new knowledge to the practice setting [3]. There are many obstacles for guidelines and even more for their implementation into the primary physician practice. We can count local factors, healthcare tradition, and non-
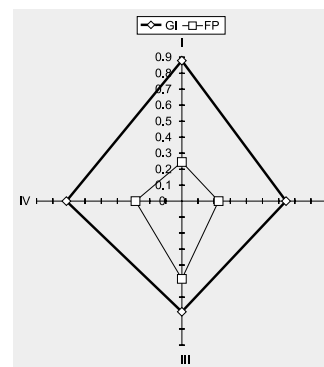
Figure 1. Comparison between gastroenterologists (GI) and family physicians (FP): grades 1 and 2 recommendation (proportion of participants). GI 1 = gastroenterologists' response of grade 1, GI 2 = gastroenterologists' response of grade 2, FP 1 = family physicians' response of grade 1, FP 2 = family physicians' response of grade 2.

Figure 2. Comparison between the responses of the gastroenterologists (n = 35) and the family physicians (n = 35). Proportion of grade 1 recommendations according to groups of statements: I = clinical picture (5 statements), II = role of gastroscopy (7 statements), III = other diagnostic tests (4 statements), IV = natural history and therapy (9 statements).

availability of tests among these obstacles. However, the main problem is poor communication between primary and specialty physicians, especially in countries where family medicine is an established specialty [3–5].

The need for guidelines was well demonstrated by Ruszniewski et al. [6], who examined the clinical entities that are most often associated with the term "gastritis." Of the patients diagnosed as having gastritis by 200 general practitioners, 54% were found to have GERD, 12% ulcer, 14% idiopathic dyspepsia, and 20% not classified. Endoscopy revealed gastritis in only 3.5% of the cases.

Several studies have examined the impact of guidelines on clinical practice. In Ohio, a multidisciplinary team developed guidelines for bronchiolitis in infants under the age of 1 year and studied their implementation [7]. They found that hospital admissions had decreased by 29%, and the average length of hospitalization by 17%, as had the use of chest X-rays (20%), nasopharyngeal washing for respiratory syncytial virus (52%), and use of all therapies (20%). The mean cost per case decreased by 77%.

Our study further supports the need for GERD guidelines for family physicians. The gap in knowledge about GERD between gastroenterologists and family physicians was significant, and may have a profound impact on diagnosis and treatment. Clear and accurate guidelines may close this gap to the benefit of patients and society.

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