

Helicobacter Pylori Detection in the Louisiana Medicaid Program

Lunacsek OE, Blake SG, Medon PJ, The University of Louisiana at Monroe, College of Pharmacy, Monroe, LA

Introduction

Since its discovery in 1982, the *Helicobacter pylori* bacterium has been linked with numerous gastrointestinal diseases, including ulcers, gastritis, and dyspepsia. Current long-term management strategies render these diseases one of the most expensive treatment areas in the Louisiana Medicaid drug program. Research has shown that testing and eradication of *H. pylori* among at-risk and infected patient groups provide a more cost-effective approach for gastrointestinal disease management than maintenance strategies.^{1,2,3,4} The purpose of this research is to examine *H. pylori* detection strategies used in the Louisiana Medicaid program between the years 1996 through 2001.

Objectives

- (1) To describe the demographic characteristics (sex, race, age, region, type of residence, and physician specialty) of the study group.
- (2) To determine what percentage of the recipients in the study group were tested for *Helicobacter pylori*.
- (3) To investigate whether the recipients' type of residence (urban vs. rural) and their physicians' specialty (specialist vs. generalist) were associated with the test status of the recipients.

Methods

Retrospective analysis of secondary data from the Medicaid Claims History File was used. To be included in the study, recipients had to meet two criteria during the study period from January 1, 1996 through June 30, 2001:

- (1) At least one claim with a primary or secondary diagnosis of gastric ulcer (531-531.9), duodenal ulcer (532-532.9), peptic ulcer (533-533.9), gastritis (535-535.5), or dyspepsia (536.8).
- (2) Continuous eligibility, which was defined as having at least one claim per every semiannum in the study period beginning with the semiannum of the index date. (The index date was the date of the recipient's first gastric condition claim in the study period.)

Data management and statistical analyses were performed using SAS 8.2, Statistix 7, and Microsoft Excel.

Variables

Sex[†]: male or female

Race[†]: white, black, or other

Age Group[†]: 0-35, 36-64, or 65+ years

Region[†]: New Orleans, Baton Rouge, Acadiana, or North Louisiana based on the LA Medicaid regional classification of the recipient's parish of residence

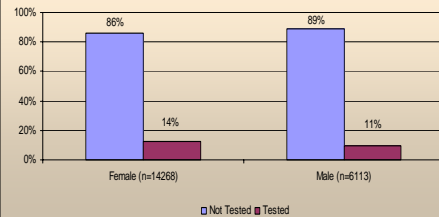
Type of Residence[†]: urban or rural based on the U.S. Office of Management and Budget classification of the recipient's parish of residence

Physician Specialty: specialist if the recipient has a claim with provider specialty of gastroenterology or pediatric gastroenterology; generalist without such claim

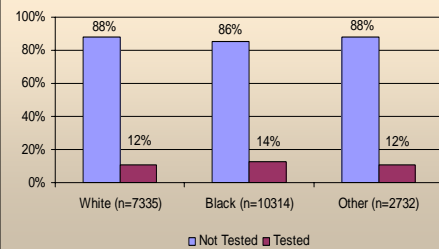
Test Status: tested if the recipient has a claim with an *H. pylori* CPT test code*; not tested without such claim

[†] obtained from the recipient's first gastric claim in the study period * 86677, 87338, 87339, 83013, 83014, 78267, 78268, 87072, 87077

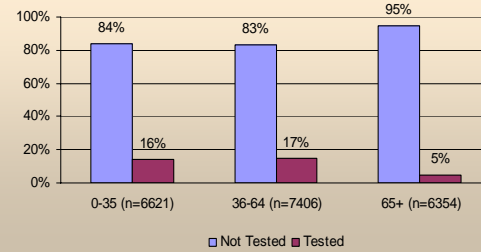
Sex and Test Status of Recipients



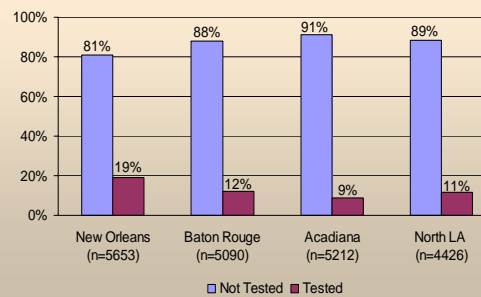
Race and Test Status of Recipients



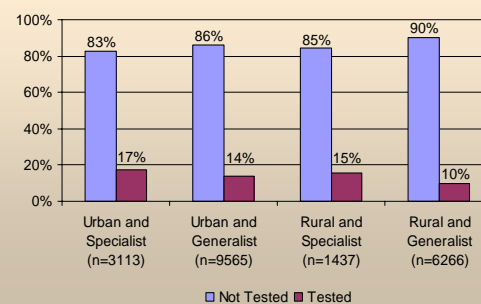
Age and Test Status of Recipients



Region and Test Status of Recipients



Type of Residence, Physician Specialty, and Test Status of Recipients



Chi-Square Test Results

	Urban and Specialist	Urban and Generalist	Rural and Specialist	Rural and Generalist
Tested	535	1311	221	600
Expected	407.36	1251.65	188.04	819.95
Cell Chi-Sq	40	2.81	5.78	59
Not Tested	2578	8254	1216	5666
Expected	2705.64	8313.35	1248.96	5446.05
Cell Chi-Sq	6.02	0.42	0.87	8.88

Overall Chi-Square: 123.79
p-value: 0.000
Degrees of Freedom: 3

Results

- (1) 20,381 recipients matched the inclusion criteria.
- (2) Demographically, the study group was predominantly female, black, and urban. The majority of the recipients visited generalist physicians.
- (3) 13.1 percent (2,667) of the recipients in the study group were tested for *H. pylori*.
- (4) The overall Chi-square of 123.79 (p=0.00, degrees of freedom=3) indicated that there was a statistically significant association between the test status of the recipients on the one hand, and their type of residence and physician's specialty on the other. Rural generalists and urban specialists contributed most to the significant overall Chi-square.

Discussion

The results showed a low rate of *H. pylori* testing among the study group recipients. A higher percentage of females than males were tested. Based on race, blacks had the highest testing rate. By age, the 36-64 age group had the highest testing rate. According to region, New Orleans had the highest testing rate. Rural recipients who visited generalist physicians were not tested as frequently as other recipients, while urban recipients who visited specialists were tested more frequently than others.

References

- (1) Peterson WL, et al. Helicobacter pylori-related disease. *Arch Intern Med* 2000;160:1285-1291.
- (2) Vaira D, Vakil N. Blood, urine, stool, breath, money, and Helicobacter pylori. *J British Soc Gastroenterol* 2001;48:287-9.
- (3) Anderson J, Gonzalez J. H. pylori infection: Review of the guideline for diagnosis and treatment. *Geriatrics* 2000;55:44-49.
- (4) Childs S, et al. The management of Helicobacter pylori infection in primary care: a systematic review of the literature. *Fam Pract* 2000;17(Suppl2):S6-11.