Correspondence

We will try to publish authors' responses in the same edition with readers' comments. Time constraints might prevent this in some cases. The problem is compounded in a bimonthly journal where continuity of comment and redress are difficult to achieve. When the redress appears 2 months after the comment, 4 months will have passed since the original article was published. Therefore, we would suggest to our readers that their correspondence about published papers be submitted as soon as possible after the article appears.

Breath Test and Serologic Testing for *Helicobacter pylori*

To the Editor: The recent article on the accuracy of the 14C urea breath test for the detection of *Helicobacter pylori* infection (Felz MW, Burke GJ, Schuman BM. Breath test diagnosis of *Helicobacter pylori* in peptic ulcer disease: A noninvasive primary care option. J Am Board Fam Pract 1997;10:385-9) is technically accurate but, in my opinion, overstates the conclusions. As the authors note, the small sample of 26 patients results in very broad confidence intervals for the estimates of sensitivity and specificity: 83 to 100 percent and 54 to 100 percent, respectively. These confidence intervals overlap with those of serologic testing, the other noninvasive test for the diagnosis of *H pylori*. The latter has the advantage of not requiring special equipment and costs only about one eighth as much as the breath test. The disadvantage is that the result is not immediately available, perhaps an important limitation in our "McDonald's" society, which wants answers "hot and now."

Before recommending this test, it is important to compare it directly with serologic testing and to consider cost, patient convenience, and the impact on therapeutic choice. Even if the breath test ends up being a little more sensitive or specific than serologic testing, if that difference does not improve patient-oriented outcomes of symptoms, costs, and recurrence rates, it should not drive the decision to use the test.

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The above letter was referred to the authors of the article in question, who offer the following reply.

Dr. Ebell notes the convenience and low cost of serologic testing in the diagnosis of *Helicobacter pylori* infection. Our data[1] centered solely on the accuracy of the urea breath test in patients characterized by the reference standard for *H pylori* diagnosis, endoscopy and biopsy. We did not analyze or compare the breath test with serologic testing, as stated in the text.

Serologic testing does indeed provide attractive sensitivity and specificity in *H pylori* diagnosis. The specificity is particularly helpful in symptomatic dyspeptic patients or in those with gastric or duodenal ulcer, among whom negative serologic findings exclude *H pylori* infection as the basis for symptoms and is far less cumbersome and expensive than invasive modalities.

Yet two confounders limit the usefulness of serologic testing for practicing clinicians. First, detectable IgG titers persist for 6 to 12 months or longer after *H pylori* eradication[2] and cannot be relied upon as evidence for therapeutic cure until long after antibiotic regimens conclude. In fact, persistent positive IgG titers, especially when measured by purely qualitative methods, as in rapid office test kits, could mislead clinicians into prescribing repeated, although unwarranted, treatment regimens for presumed therapeutic failure to eradicate *H pylori* infection. Quantitative ELISA (enzyme-linked immunosorbent assay) measurement, available at commercial or research laboratories, might be necessary to document progressively decreasing titers during the several months following therapy as evidence of cure.

Second, the rate of seropositivity to *H pylori* in developed countries rises with advancing age, reaching 40 to 50 percent by the sixth decade, in asymptomatic and noninfected persons.[3] Positive serologic findings in these middle-aged patients, admittedly a high-risk group for true ulcer syndromes, might easily be misinterpreted as evidence for active infection, leading clinicians to pursue expensive efforts in invasive diagnosis (such as endoscopy) or, again, unwarranted and costly therapy.

The breath test seems to us to clarify these confounders in large measure. By testing for *H pylori*-derived urease in human gastroduodenal mucosa, the breath test provides physicians with a timely bioassay of active bacterial infection in peptic ulcer patients. Positive urease activity indicates clinically important *H pylori* infection at the precise time of sampling, eliminating much of the diagnostic confusion, redundant testing, and improper antibiotics that might follow detection of carryover seropositivity from previous but eradicated infection. Positive breath test results also rule out simple age-related seroprevalence. Furthermore, negative breath test results confirm efficacy of eradication regimens as a rapid follow-up modality (1 month) after therapy concludes. Finally, negative breath test results predict long-term remission in *H pylori*-positive ulcer patients treated with successful eradication of *H pylori*. Serologic testing, whether positive or negative, requires months of follow-up and periodic sampling, to our knowledge, and might not correlate precisely with long-term remission.

Serologic testing and breath tests are actually complementary and not at all mutually exclusive. Serologic testing might be of more benefit in untreated patients as a first-line indicator of *H pylori* status. Breath tests might yield more informative diagnostic data in patients previously treated for *H pylori* infection or in whom endos-

copy is not performed. Both modalities are useful for clinicians who understand the relative merits of each in the complex management of peptic ulcer disease.

Michael W. Felz, MD
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References

1. Felz MW, Burke GJ, Schuman BM. Breath test diagnosis of *Helicobacter pylori* in peptic ulcer disease: a noninvasive primary care option. J Am Board Fam Pract 1997;10:385-9.
2. Hirschl AM, Brandstatter G. Dragosics B, Hentschel E, Kundi M, Rotter ML, et al. Kinetics of specific IgG antibodies for monitoring the effect of anti-*Helicobacter pylori* chemotherapy. J Infect Dis 1993;168:763-6.
3. Marshall BJ. *Helicobacter pylori*. Am J Gastroenterol 1994; 89 (suppl):S116-28.

Management of Parkinson Disease

To the Editor: With regard to the article by Manyam (Manyam BV. Practical guidelines for management of Parkinson disease. J Am Board Fam Pract 1997;10:412-2), I wish to comment on two recommendations for drug treatment of Parkinson disease. As noted in the article, compared with younger patients, elderly patients have a much higher sensitivity to anticholinergic side effects of medications, which can often precipitate confusion and occasionally frank delirium. As a result, many clinicians prefer to prescribe selective serotonin reuptake inhibitors rather than amitriptyline for depression. In addition, amitriptyline can cause orthostatic hypotension and cardiac conduction disturbances (atrioventricular node block), which can be more problematic in older patients.

For the treatment of agitation associated with dementia in patients with Parkinson disease, some geriatric psychiatrists currently recommend olanzapine as the antipsychotic medication of choice because it does not cause extrapyramidal side effects. This drug is preferred to clozapine because there is no need to monitor for agranulocytosis.

Management of Parkinson disease, especially in a person with concomitant illnesses, can be challenging for the physician. I am pleased to see Dr. Manyam's comprehensive overview as a reference for clinicians.

Linda Mandanas, MD
Oswego, New York

The above letter was referred to the author of the article in question, who offers the following reply.

Dr. Mandanas is right in her observation that elderly patients are more sensitive to anticholinergic side effects when antidepressants are administered in the usual adult doses. In spite of my awareness of the above fact, I still prefer amitriptyline as my initial drug for treating depression in patients with Parkinson disease provided there are no contraindications (dementia, bradycardia, benign prostatic hypertrophy). I start with 25 mg at night and very gradually increase the dose. Most patients have good results with 50 or 75 mg.

Amitriptyline has duel benefits in patients with Parkinson disease—an antidepressive effect and an antitremor effect as a result of its anticholinergic component. If the patient does not tolerate amitriptyline, then I prescribe a different antidepressant drug. In the subsection on dementia in my article (p 420), I suggested that if dementia or hallucination is already present, anticholinergic drugs in all forms should be avoided. Because orthostatic hypotension can be caused by the primary disease itself or the medications, I routinely obtain pulse rate and supine and upright blood pressures in all Parkinson disease patients. My article was written as a general guide, and the suggestions offered should be modified based on individual patient's condition.

I agree with Dr. Mandanas' suggestion regarding the use of olanzapine, which does not require uncomfortable monitoring for agranulocytosis or the related paperwork.

Bala V. Manyam, MD
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Health Problems of Refugees

To the Editor: Dr. Ackerman[1] uses a creative approach in determining important medical and cultural issues of refugees. She acknowledges that most data are from studies conducted in the country of origin. We agree there is a dearth of data on health care of refugees once they arrive in the United States. Furthermore, there is little information on the costs of medical care provided to refugees.

Dr. Ackerman cites the experience of some Somali and Ethiopian children who arrived in Buffalo, NY, with inadequate immunizations, anemia, intestinal parasites, and dental caries.[1,2] We were involved with the Refugee Health Project in Buffalo from 1987 to 1994. More than 1500 refugees were triaged through our Refugee Health Center during a 1-year period (1991-92). Our estimated expenses for that year were $202,800 (in 1992 dollars). Costs included hospital care, nursing salaries for the health project, vaccines and Mantoux testing, medical supplies, and transportation to medical facilities. Of 306 refugees examined and tested that year, 27 percent had positive tuberculosis (PPD) test results. Many had intestinal parasites. Nine refugees were hospitalized during the 1991-92 period, 2 were for psychiatric reasons, 4 women were in labor, and 3 children had pyelonephritis, vasculitis, and typhoid, respectively.

Other health problems might have been a consequence of hardships the refugees and their families had endured in refugee camps en route to the United States. We documented malnutrition, overwhelming fatigue, scabies, and dysentery. Depression, anxiety, and even psychosis were not unusual. Few pregnant women reported prenatal care. Persons with chronic conditions arrived without needed medications. Some refugees had been tortured or mutilated; 3 women reported be-