

stitutions (manuscript in preparation) indicate that the correlation to ISE is $R = .94$ with a linear regression equation of $Y = -.1564 + 1.034X$.

It is standard procedure to run control sera (as suggested in our literature) when questionable results are obtained. Stat Chem Inc clearly states that only our controls are suitable for this system. It seems odd that Drs Gregory, Duh, and Koch made no attempt to obtain these from our company based on their difficulty in obtaining adequate results. Since the details of the investigators' study are not reported, we are unable to ascertain if the system or the reagents were performing to our specifications.

In summary, we find the results from the University of Maryland to be contrary to our findings when the system is used properly. We believe our quality control programs, both in-house and on-site for the end user, provide assurance that quality results are obtained using the Stat Test System.

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PHARMACOLOGY ROUNDS

To the Editor:

The relationship between physicians and the pharmaceutical industry has financial, quality of care, and ethical ramifications. Current estimates are that the pharmaceutical industry spends approximately \$5000 per physician per year to influence prescribing patterns.¹ Once prescribing practices are established, efforts to improve inappropriate or suboptimal pharmacotherapy frequently result in only minimal change.²

Since March 1989, as one component of our long-term plan to promote the further development of rational prescribing practices by residents, the Department of Family

Medicine at the Memorial Hospital of Rhode Island has conducted monthly "Pharmacology Rounds" in which family practice residents, faculty (including a clinical pharmacist and a community family physician), and a pharmaceutical representative participate. The purpose of the conference has been to provide an educational forum both for discussing medication-related issues important in primary care practice and for facilitating the professional exchange between residents, faculty, and pharmaceutical representatives.

The structure of the conference has included a brief discussion of a common medical problem such as allergic rhinitis or of an issue such as contraception. This has been followed by an overview of a new medication and a comparison of it with standard therapies by the faculty clinical pharmacist. The comparison is focused on the effectiveness, the potential adverse reactions, and the cost of the new medication to the patient. Initial discussion questions such as the potential place of a new antihypertensive agent or antiulcer medication in primary care are identified and debated by everyone, including the pharmaceutical representative.

One benefit to the residents has been the identification of important issues for evaluating new medications and choosing among older therapies commonly prescribed in primary care. The questions raised by faculty physicians, who act as role models for the residents, have been of particular benefit. In addition, the discussion format of the conference has highlighted to the residents the limited scope of clinical knowledge of some pharmaceutical representatives. It has underscored the need for critical evaluation of any information supplied by pharmaceutical representatives during future "detailing" sessions.

The pharmaceutical representatives have also benefited from participating in the conference. In order to participate effectively, they must be prepared to compare their product with the current standard of therapy,

especially with respect to potential adverse reactions. More importantly for the individual pharmaceutical representative, the discussion in the conference has focused on the specific type, as well as format, of information that physicians require in evaluating new medications.

Traditionally, faculty physicians have been identified as the most important sources of influence on the prescribing patterns of residents.^{3,4} We believe the faculty have benefited not only from the information presented, but also from the comments of the residents during the conference. Issues such as dealing with patient demands for inappropriate medications have been raised by the residents and have emphasized the continued need by medical educators to address the realities of office practice.

In summary, we believe that "Pharmacology Rounds" complements existing residency activities, including traditional didactic lectures and other ongoing conferences, and is implemented easily. It provides a framework within which the resident can develop further skills in evaluating new medications and in interacting with pharmaceutical representatives.

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EPSTEIN-BARR VIRUS

To the Editor:

As a family physician interested in the problem of chronic fatigue syndrome, I enjoyed reading the report by Alan R. Fark, entitled "Infectious Mononucleosis, Epstein-Barr Virus, and Chronic Fatigue Syndrome: A Prospective Case Series."¹ Regarding the subject of his study, I would like to add a few comments about the use and interpretation of the laboratory tests discussed in his report.

A number of factors, including the accuracy of a test and the pretest probability of disease, must be considered when interpreting the results of a single diagnostic intervention. Dr Fark relied on the rapid slide agglutination test for "confirmation of a diagnosis of infectious mononucleosis" caused by the Epstein-Barr virus. Rapid slide agglutination tests such as the Monospot test have fairly high specificity for acute infections with the Epstein-Barr virus. Depending on the type of rapid test used, however, false positive results may occur in up to 12% of persons who have no sign of acute infection.²

In the presence of typical clinical symptoms (sore throat, fever, lymphadenopathy, fatigue) and hematologic criteria (lymphocytosis with atypical lymphocytes), the positive predictive value of such a test is relatively high. For a patient with an unusual or atypical presentation, however, the positive predictive value of the rapid slide agglutination test decreases. For example, patient C in Dr Fark's series of seven patients was a 33-year-old woman who had symptoms of headache, nausea, vomiting, myalgias, and weakness, with only mild adenopathy and minor pharyngeal erythema on examination. Information regarding the pres-

ence or absence of atypical lymphocytes was not reported. The fact that an acute initial infection with Epstein-Barr virus is uncommon over the age of 25 years coupled with the atypical clinical presentation of this patient greatly increases the probability that the positive (abnormal) result of the rapid slide heterophile test was falsely positive for diagnosing an acute Epstein-Barr virus infection in this patient.

The use of the more accurate measures of Epstein-Barr-virus-specific antibodies, particularly IgM antibodies to viral capsid antigen, are rarely necessary (or practical in day-to-day clinical practice) to make a reasonably accurate diagnosis of acute Epstein-Barr virus infection. The follow-up data presented by Dr Fark are difficult to interpret, however, unless accurate serologic, clinical, and hematologic criteria are used to diagnose the initial infection. This is especially true when only a few patients (seven patients in this case) are involved in the research study.

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The preceding letter was referred to Dr Fark, who responds as follows:

I appreciate Dr Smucker's constructive comments, and would con-

cur that the study design in this instance would have been better served by making a definitive diagnosis of mononucleosis with IgM antibodies to viral capsid antigen, and by using a larger patient study group.

I feel confident, however, that each patient studied indeed had acute infectious mononucleosis at the time of entrance into the study. Surprisingly, significant atypical lymphocytosis was reported by the laboratory in only two of the seven cases (patient C was one of these for whom atypical lymphocytosis was reported). Unpublished data in this study included results of blastogenesis studies of patient lymphocytes taken during the acute infection activated by mitogens in vitro. Uniform diminution of the blastogenic response to pokeweed mitogen among all seven patients was demonstrated, reflecting the profound nonspecific in vitro immunosuppression to this mitogen that is known to be characteristic of acute infectious mononucleosis.¹ This finding, in concert with the clinical constellation of symptoms and low-grade hepatitis that occurred in five of the seven patients, provides strong substantiation of the diagnosis of infectious mononucleosis as confirmed with the rapid slide agglutination test.

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