quantitative enzyme immunoassay reactivity for predicting human immunodeficiency virus seropositivity in low- and high-prevalence populations. J. Clin. Microbiol. **32**:220–223.

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Author's Reply

We appreciate Dr. Michalski's comments on our study describing the use of quantitative EIA reactivity in predicting HIV seropositivity by Western blot. We agree that the relationship between HIV antibody titer and absorbance is not directly linear, as demonstrated by George (1). Furthermore, one cannot define a true quantitative relationship between a screening test which generates continuous numerical data (HIV EIA) and a confirmatory test with a categorical interpretation (HIV Western blot). However, there is a generally direct relationship between EIA absorbance and HIV antibody titer as measured by serial dilutions (1), and we have demonstrated that one can make semiquantitative use of these quantitative data to predict HIV Western blot positivity with a high degree of reliability.

Given the significant clinical and psychological impact of a positive diagnosis of HIV-1 infection, we do not suggest that our algorithm is currently appropriate for widespread use. We do feel that it is an approach which warrants further evaluation and which may find utility at present in situations such as the selected circumstances we suggested (e.g., epidemiologic surveys, rapid diagnosis, and resource-poor settings).

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E Test as Susceptibility Test for Evaluation of *Neisseria meningitidis* Isolates

We read with interest the article by Hughes et al. (4) about their experience with E Test (AB Biodisk, Solna, Sweden) as a susceptibility test for evaluating *Neisseria meningitidis* isolates. We agree that the test is useful and think that it could be the method of choice for separating penicillin-sensitive strains from penicillin-resistant strains in laboratories without facilities for agar dilution techniques.

In recent years, *N. meningitidis* strains with low levels of penicillin resistance have been reported in Great Britain (5), Canada (8), Spain (7, 9, 10), and elsewhere (1, 11). In these strains, the MIC of penicillin is 5- to 50-fold higher than it is in susceptible strains (6). Tentative criteria have been proposed for discriminating between strains with moderate susceptibility and those with full susceptibility to penicillin by the disk diffusion method (2, 3), but we have found no antibiotic disk sufficiently sensitive and specific to separate clearly the two bacterial populations.

In our opinion, the oxacillin 1-μg disk is not suitable for differentiating these populations. Thirty of 65 strains with penicillin MICs of 0.03 to 0.06 μg/ml tested in an earlier study produced no inhibition zone around the oxacillin disk.

We studied 187 *N. meningitidis* isolates. None of the strains produced β-lactamase. Nonduplicated organisms from recently obtained clinical isolates (cerebrospinal fluid, blood cultures, or pharyngeal swabs from carriers) were maintained as stock cultures at −70°C until just before testing. Stock cultures were thawed and samples were inoculated onto plates containing 5% chocolate horse blood agar. After incubation for 20 to 24 h, isolate colonies were subcultured onto a second chocolate agar plate which was incubated for another 20 to 24 h. Growth from this plate was used to prepare inocula.

GC agar (BBL, Cockeysville, Md.) supplemented with 5% chocholate horse blood was used for classical disk diffusion, the E Test, and agar dilution.

Plates were inoculated with 5.10^7 CFU for classical disk diffusion and the E Test and with 10^4 CFU for dilution agar (the reference MIC method). All plates were incubated in 5% CO_2 at 35°C for 24 h.

Of the 187 strains studied, 61 strains had penicillin MICs of ≥0.25 μg/ml by the reference agar dilution method. By the diffusion method, the penicillin 2U disk (P2) and the amdinocillin 10-μg disk (AMD10) were useful for discriminating between penicillin-resistant and penicillin-sensitive strains, but their specificity and sensitivity were not optimal. No penicillin-sensitive strain had a P2 zone of less than 22 mm in diameter or an AMD10 zone of less than 16 mm, and no penicillin-resistant strain had a P2 zone of more than 27 mm or an AMD10 zone of more than 21 mm. However, many strains produced intermediate results that were between these limits: 72 (38.5%) strains screened with the P2 disk and 36 (21.2%) strains screened with the AMD10 disk.

Comparison of the MICs obtained by the agar dilution method and the E Test showed agreement of the results to within 1 $\log_2$ dilution in 97.3% (182 of 187) of strains. For the remaining five strains, the results of these two methods agreed to within 2 $\log_2$ dilutions, and only one of these strains was penicillin resistant (MIC = 0.25 μg/ml).

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Ed. Note: *The author of the published article declined to respond.*