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Letter to the Editor

Misclassification of Stages of Syphilis

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To the Editor:

In their article published in the March 2005 edition of *Sexually Transmitted Diseases*, Peterman et al present evidence that current surveillance definitions for latent syphilis may not be implemented uniformly either between or within jurisdictions. They report confusion regarding some of the case definitions. Based on their findings, other reasoning, and informal evidence, they have suggested abandoning the current definitions and simply classifying latent cases based on their titer. We do not believe that their analysis supports such a radical proposal and that it would worsen our syphilis surveillance.

The authors describe problems with jurisdictions using different criteria for staging disease. This is not in itself a fault of the current criteria. Whatever the Centers for Disease Control and Prevention (CDC) chooses for national case definitions, they will need compliance both by the program as a whole and by those staging cases. If there is nothing to prevent a jurisdiction from changing the age cutoff for the "latent disease of unknown duration" case definition, there is nothing to prevent them from changing the titer cutoff either. Some jurisdictions could decide on their own to use 1:32 or 1:8 as the cutoff between "high-titer" and "low-titer" latent cases as a result of the distribution of infectious patients based on initial titer in their jurisdiction. Some jurisdictions might classify the cases based on initial titers from screening, whereas others on the titer obtained when the case is treated and "diagnosed," which can be weeks later. If the new criteria can be enforced somehow, the existing ones can be enforced, too.

The public health importance of counting early latent cases is frequently debated. Some of the problem is semantic. Truly latent patients are not infectious to others; however, patients can have clinical relapses that are mild and unnoticed, but although they appear to be latent, they are still infectious. Furthermore, patients found between the primary and secondary stages are technically early latent, although these infections can be newer than those for patients in the secondary stage. However, those who do not consider any latent cases to be important will not find totals for high- and low-titer cases any more useful than those for early and late latent, whereas those of us who want to consider early latent cases when counting infectious cases will have no data.

We have analyzed testing data from our latent cases in San Francisco and found that 35.2% of early latent cases since 1999 (276 of 783) would be classified as "low titer," whereas 12.3% of late latent cases (63 of 511) would be classified as "high titer." Because of these very concerns regarding the accuracy of staging cases as early latent, we began systematically recording in our surveillance database the criterion in the CDC case definition that we used to stage the case. Of the 293 early latent cases in which we have documented the basis for staging, 97 cases (33.1%) had an initial titer less then 1:16. Titer appears to be a poor proxy for potential infectivity here in San Francisco.

The authors describe confusion regarding the unknown-latent definition both on their own part and on the part of those in their study. We have found that the reason that this stage is confusing is not that it is poorly defined, but that it does not match what the textbooks on syphilis describe. The proposed scheme would only make things even worse in this respect, because both early and late latent stages will be eliminated and 2 new designations are added. We do not see how this would be less confusing and more acceptable to those who are confused by the current unknown-latent designation.

As the authors describe, lack of a testing history may result in some cases being managed clinically as late disease while epidemiologically as early. This can result in 2 different totals for early and late latent cases. What the authors propose, however, would be a third set of numbers based on the titer. We should remember that the unknown-latent stage was added precisely to reconcile this discrepancy between clinical management and partner management so that there could be one set of numbers for surveillance. We believe this is still a worthwhile goal.

We propose two changes. First, the criteria for early latent disease should be expanded to include response to therapy. Second, the unknown-latent definition should be expanded to include all cases fitting the definition of presumptive late latent (i.e., those lacking any data on whether the infection may have occurred within the last year) who are assigned for interview, regardless of the age of the patient or the initial titer.

Comparisons of unknown-latent totals between jurisdictions would be complicated by different standards for assigning cases for interview; when comparing the number of potentially infectious cases between jurisdictions, these would not be considered (because they are ignored at present). However, when these totals are combined with the totals for P&S syphilis and early latent disease, we will be able to see the number of cases that the program acted on.

These relatively minor changes would address the two greatest complaints the authors make about the early latent totals; namely, that some programs use different standards for staging cases, and that some cases are wrongly staged as early to justify an interview. By improving the accuracy of the stage and the consistency across programs, we will have a surveillance system for early syphilis that the authors should be able to trust again.