

columns will address these and other related issues.

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#### REFERENCES

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#### *The author replies.*

Dr. Birnbaum importantly points out that, in my paper, no sensitivity or specificity data were reported for the threshold testing method. One reviewer of the manuscript also raised this issue. This is an important consideration, and I have the following comments.

As I noted in the paper, most outbreaks (eg, diarrheal illness, influenza-like illness, conjunctivitis, gastroenteritis) in nursing homes can be identified without resorting to special methods

for detection. More commonly, however, infection control practitioners in nursing homes are faced with, for example, a frequency of skin and soft-tissue infection that exceeds the endemic level during 1 month. The concern is not so much about an outbreak, but that existing regulations require that "excessive" infection occurrences be evaluated and reported. For example, in the past 5 years, thresholds for various types of infections have been exceeded 15 to 20 times in several nursing homes for which I serve as a consultant; after investigation, none of these episodes were found to be outbreaks requiring special interventions. Nevertheless, all were reported to the regulatory agency. The concern on the part of the nursing home administration is that, if these situations are not reported, it could lead to an investigation by the regulatory agency later, resulting in fines or public reprimand; on the other hand, excessive and unnecessary reporting overburdens the understaffed regulatory agency. Compounding the problem is that regulators have not provided a uniform method for evaluation of surveillance data. This lack of methodology has resulted in confusion among nursing homes about how to analyze data and when to report. Threshold testing or methods like it may help to reduce confusion and unnecessary reporting by establishing a consistent and simple method for evaluating surveillance data.

Given the very low prevalence

of outbreaks in individual nursing homes, but the very real need to deal with occasional high infection frequencies, determining the "optimal" threshold distance for evaluation of surveillance data *in the nursing home setting* may be difficult and unnecessary. Endemic infection levels of various types are usually  $\leq 4$  per month, but fluctuations occur frequently, as demonstrated in my paper. For endemic levels of  $\leq 4$ , there are only small increments in the threshold numbers for each probability level, and the "distance" of these threshold numbers above the endemic level is relatively small in magnitude.

It is encouraging that Dr. Birnbaum agrees that the statistical approach underlying threshold testing is appropriate for evaluating nosocomial infection surveillance data. I am looking forward to future comments in *Infection Control and Hospital Epidemiology* that provide insights into how to "fine tune" threshold testing. Focusing on this area will, I hope, engender interest in methods such as threshold testing for evaluating surveillance data and provide the impetus for regulatory agencies to standardize the analysis of such data, especially for nursing homes.

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