



### // MISSED THE LAST ISSUE?

All stories from *Proto*, Fall 2008, are available at [protomag.com](http://protomag.com).

## Triaging Triage

“Sick of Waiting” (Summer 2008), your report on ways emergency rooms are coping with overcrowding, did a good job of explaining the causes and effects of ER delays at the levels of the hospital and the health care system. But it fell short of describing how ERs can solve many overcrowding problems where they originate—in the ER itself.

The Nyack (N.Y.) Hospital ER, which treats more than 43,000 patients a year in a facility built for half that number, has adopted a bold service standard of 30 minutes between the time a patient arrives and the time he or she is seen by a physician. The standard is met more than 95% of the time. The major reason for this success was the dismantling of our ER triage system. A patient once had to enter, sign in, wait to see a triage nurse, get triaged, return to the waiting area and eventually be invited into the ER. Under the new system, a patient is assigned directly to an ER bed or stretcher.

The staff time that was spent performing triage has now been redirected into the very care that patients came for in the first place. The question “When am I going to be seen?” has been eliminated; under the old system, patients often walked out when they could not get an answer.

**David H. Freed** // President and CEO, Nyack Hospital, Nyack, N.Y.

## Case-Control Studies Examined

Your recent guide to epidemiological studies (“Body of Evidence,” Fall 2008) describes case-control studies as analyses of subjects as groups, not individuals. That’s a significant error with important consequences.

The type of study design described is an ecological association study, one of the weakest in epidemiology because it is subject to the “ecological fallacy”: When group-level characteristics (such as dietary

consumption of meat in a country) are matched with group-level outcomes (such as the risk of colon cancer), the investigator has no idea whether the characteristics of individual subjects were associated with the outcome. It could easily be that one group is consuming meat and another group entirely is getting colon cancer.

Case-control studies, by contrast, compare the frequency of characteristics of individual cases with the individual characteristics of matched subjects who do not have the disease of interest. A hospital in India, for example, may know that the local population is largely vegetarian but not know how many of its patients eat meat. A case-control study of colon cancer only requires the hospital to randomly find two or three patients with some other problem (or residents living near the cases) matched in age and sex and to ask if they eat meat. The odds of a subject eating meat can then be calculated.

In short, case-control studies are strong study designs indeed, second to longitudinal studies only because they have less power and more uncertainty surrounding the populations being examined.

**Tee L. Guidotti** // Professor of Environmental and Occupational Health, George Washington University, Washington, D.C.

*We appreciate Professor Guidotti’s close reading of our article. In our opinion, however, the distinction he draws does not constitute an error. His concern would have been avoided if instead of “group of patients” we had written simply “patients,” thus avoiding a perceived reference to the statistical methods used to compare “groups” as opposed to those used to compare collections of “individuals” (which most readers would see as synonymous with a group). We point out that these studies are subject to misinterpretation because of unmeasured factors, so we’re confident we haven’t misled readers.*

**Ivan Oransky** // New York City

**Andrew Holtz** // Portland, Ore.

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