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To the Editor,

Malach et al. suggest that presence of an intravenous peripheral catheter longer than 3 days is a risk factor for phlebitis. A point-prevalence research design was used in their study whereby patients with phlebitis were compared with an unmatched control group of patients who did not have phlebitis. There are significant problems with drawing strong conclusions from such a design, which the authors themselves acknowledge. Other prospective, longitudinal studies have found that it is within the first two days following peripheral catheter insertion that the patient is at highest risk for infection. These authors surmise that breaching skin integrity, which occurs more frequently with 72 hour changes, may contribute to this result. We have supported their conclusions in a recent randomized controlled trial, where the incidence of phlebitis was similar in the 3-day change group and the change when clinically indicated group. Among those who had their peripheral catheter removed for phlebitis, the mean length of time that the catheter was in-situ was 48.7 hours.

We believe, if patients are not matched for risk factors that may influence outcomes, incorrect conclusions may be drawn. This could have considerable patient care and economic implications. Consequently, it is important to use the correct study design when trying to understand significant health care questions.


