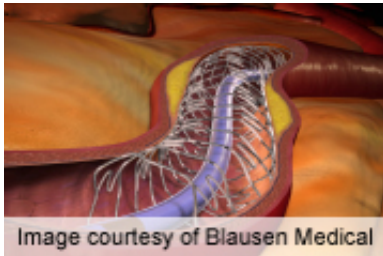


# Analytic strategy can cut bias in large observational studies

25 August 2014



"This methodology cannot eliminate all potential for biases; however, it removes the potential bias from site-level factors," the authors write.

Several authors disclosed financial ties to the pharmaceutical and medical device industries.

**More information:** [Abstract](#)  
[Full Text \(subscription or payment may be required\)](#)

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(HealthDay)—In multicenter observational studies, bias from variability in treatment selection between clinical centers can be reduced by matching recalibrated propensity scores within clinical centers, according to a study published online Aug. 12 in *Circulation: Cardiovascular Quality and Outcomes*.

Kevin J. Anstrom, Ph.D., from the Duke University Medical Center in Durham, N.C., and colleagues evaluated data from 262,700 older individuals receiving either drug-eluting stents or [bare metal stents](#) from 650 CathPCI Registry sites. To better understand variability in the [treatment selection](#) process within clinical centers, [propensity score](#) models were estimated to describe the process used to select drug-eluting stents across the study population.

The researchers found that even after accounting for differences in patient and clinical center characteristics, substantial variability in the use of [drug-eluting stents](#) at the clinical center level was observed. A balanced cohort on treatment allocation and prognostic factors was obtained by refitting and matching propensity scores within clinical centers. An estimated hazard ratio that was qualitatively similar to standard regression models and other propensity score approaches was achieved with this approach.

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