Emergency department resource use by supervised residents vs. attending physicians alone
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In a sample of U.S. emergency departments, compared to attending physicians alone, supervised visits (involving both resident and attending physicians) were associated with a greater likelihood of hospital admission and use of advanced imaging and with longer emergency department stays, according to a study in the December 10 issue of *JAMA*, a theme issue on medical education.

A common assumption is that care at *academic medical centers* costs more than care at nonteaching hospitals in part because of a higher frequency of testing and other resource use in teaching settings. Cost-effective care is among the "milestones" now used to evaluate *emergency medicine* residents and accredit *emergency medicine* residency programs. Although there is evidence that resident supervision may improve some patient outcomes, few studies of supervised learning have explicitly evaluated resource use as an outcome, according to background information in the article.

Stephen R. Pitts, M.D., M.P.H., of the Emory University School of Medicine, Atlanta, and colleagues compared resources used in supervised vs attending-only visits with data from the National Hospital Ambulatory Medical Care Survey (2010), a sample of U.S. emergency departments (EDs) and ED visits.

Of 29,182 ED visits to the 336 nonpediatric EDs in the sample, 3,374 visits were supervised visits. Compared with the 25,808 attending-only visits, supervised visits were significantly associated with more frequent *hospital admission* (21 percent vs 14 percent), *advanced imaging* (computed tomography, ultrasound, or magnetic resonance imaging; 28 percent vs 21 percent), and a longer median ED stay (226 vs 153 minutes), but not with *blood testing* (53 percent vs 45 percent).

"In our study of a nationally representative sample of ED visits, we hypothesized that supervised visits would consume more resources than nonsupervised visits, reasoning that supervised learning favors a more deliberate, reflective decision-making style than nonteaching clinical visits. We confirmed consistently higher use of several ED resources among supervised visits even after adjustment for several other possible determinants of resource use that were available in the survey," the authors write.

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