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Emergency department resource use by supervised residents vs attending physicians alone. Pitts SR, Morgan SR, Schragger JD, Berger TJ. JAMA. 2014 Dec 10;312 (22):2394-400.

Clinical Question: Do residents use more resources in the workup and treatment of patients than your attendings?

Methods: Cross-sectional study of the National Hospital Ambulatory Medical Care Survey (2010), a probability sample of US EDs and ED visits. Supervised visits, defined as visits involving both resident and attending physicians. Three ED teaching types were defined by the proportion of sampled visits that were supervised visits: nonteaching ED, minor teaching ED (half or fewer supervised visits), and major teaching ED (more than half supervised visits). Association of supervised visits with hospital admission, advanced imaging (computed tomography, ultrasound, or magnetic resonance imaging), any blood test, and ED length of stay, adjusted for visit acuity, demographic characteristics, payer type, and geographic region.

Results: Of 29,182 ED visits to the 336 non-pediatric EDs in the sample, 3374 visits were supervised visits. Compared with the 25,808 attending-only visits, supervised visits were significantly associated with more frequent hospital admission (21% vs 14% advanced imaging (28% vs 21%), and a longer median ED stay (226 vs 153 minutes; adjusted geometric mean ratio), but not with blood testing (53% vs 45%). Of visits to the sample of 121 minor teaching EDs, a weighted estimate of 9% were supervised visits, compared with 82% of visits to the 34 major teaching EDs. Supervised visits in major teaching EDs compared with attending-only visits were not associated with hospital admission (aOR, 1.15; 95), advanced imaging (aOR, 1.21), or any blood test (aOR, 1.02; 95%), but had longer ED stays (adjusted geometric mean ratio, 1.32; 95%).

Conclusions and Discussion: In a sample of US EDs, supervised visits were associated with a greater likelihood of hospital admission and use of advanced imaging and with longer ED stays. Whether these associations are different in EDs in which more than half of visits are seen by residents requires further investigation. These results are not surprising, but there may be some sampling bias as to higher acuity tertiary centers having a larger percentage of “supervised visits” with significantly more ill patients. What would be more interesting is to quantify the efficiency and cost effectiveness of having residents vs paying ‘mid-levels’ and the increased RVUs associated with having a resident help attendings see more patients and bill for more services.
