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## Is prescribing by PAs and NPs comparable to physician prescribing?

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### Abstract

PAs and NPs have broad prescribing authority in the United States, yet little is known about how the quality of their prescribing practices compares with that of physicians. The quality of prescribing practices of physicians, PAs, and NPs was investigated through a serial cross-sectional analysis of the 2006–2012 National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS). Ambulatory care services in physician offices, hospital EDs, and outpatient departments were evaluated using a nationally representative sample of patient visits to physicians, PAs, and NPs. Main outcome measures were 13 validated outpatient quality indicators focused on pharmacologic management of chronic diseases and appropriate medication use. The study sampled 701,499 patient visits during the study period, representing about 8.3 billion visits nationwide. Physicians were the primary provider for 96.8% of all outpatient visits examined; PAs and NPs each accounted for 1.6% of these visits. The proportion of eligible visits in which quality standards were met ranged from 34.1% (angiotensin-converting enzyme inhibitor use for patients with heart failure) to 89.5% (avoidance of inappropriate medications in older adults). The median overall performance across all indicators was 58.7%. On unadjusted analyses, differences in quality of care between PAs, NPs, and physicians for each indicator did not consistently favor one practitioner type over others. After adjustment for potentially confounding patient and provider characteristics, the quality of prescribing by PAs and NPs was similar to the care delivered by physicians for 10 of the 13 indicators evaluated, and no consistent directional association was found between provider type and indicator fulfillment for the remaining measures. Although significant shortfalls exist in the quality of ambulatory prescribing across all practitioner types, the quality of care delivered by PAs, NPs, and physicians was generally comparable.<sup>1</sup>

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In NHAMCS, patient visits were selected from a sample of outpatient/emergency departments regardless of the care provider seen, while NAMCS visits are selected from the patient log of sampled office-based physicians.<sup>2</sup> Therefore, medications documented in NAMCS office-based visits seen by PAs/NPs may be subject to the sampled physician's supervision or initiated prior to the sampled visit. Because of NAMCS/NHAMCS sampling designs, almost all ambulatory visits in the study seen by NPs/PAs were from NHAMCS. However, because 2012 NHAMCS outpatient data have not been publicly released, the total

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number of visits in 2012 was considerably lower than all other years in the study. Additionally, the study was limited to only eight medications documented per visit to determine prescribing quality. Since then, the maximum number of medications documented per visit has increased to 30. The percentage of NAMCS visits with more than eight medications documented ranged from 8.1% to 13.0% over the years.<sup>3,4</sup>

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