Impact of Academic Detailing to Increase Thiazide Diuretic Use in Hypertensive Patients

Stafford RS, Bartholomew LK, Cushman WC, et al; ALLHAT Collaborative Research Group. Impact of the ALLHAT/JNC7 Dissemination Project on thiazide-type diuretic use. Arch Intern Med 2010 24;170:851–8.

Study Overview

Objective. To examine the impact of the ALLHAT/JNC-7 Dissemination Project's academic detailing component on changing national hypertension prescribing patterns.

Design. Prospective, ecological analysis.

Setting and participants. The authors used 2 national databases: (1) an office-based physician survey of medications reported for hypertension, and (2) a pharmacy dispensing database on antihypertensive medications. The ALLHAT/JNC-7 Dissemination Project's academic detailing component utilized 147 investigator-educators in 41 states. Each investigator-educator was trained to present ALLHAT results and 5 intervention prescribing guidelines to physicians, including the prescription and recommended use of thiazide-type diuretics. Medication data was correlated with academic detailing intensity at the county level. Intensity was measured as the number of physician participants contacted by the investigator-educators per 100,000 population members 50 years or older. Prescribing practices before the dissemination project (2004) were compared with those after its completion (2007) and national trends were examined from 2000 to 2008.

Main outcome measures. Physician prescribing and pharmacy dispensing of thiazide-type diuretics.

Main results. Academic detailing trained 147 investigator-educators, who reached 18,524 physicians in 1698 venues across 41 states. Increased intensity of ALLHAT/JNC-7 academic detailing was associated with increased prescribing of thiazide-type diuretics. Physician prescription of thiazide-type diuretics during hypertension visits had the greatest increase in counties with the highest intensity of academic detailing efforts (8.6% change; from 37.9%–46.5%) compared with counties where activity was moderate (2% increase) or low (2% decrease), or where there was no activity (2% increase; P value for trend, < 0.05). Pharmacy dispensing of thiazide-type diuretics increased by 8.7% in counties with academic detailing activity compared with 3.9% in counties without activity ($P < 0.001$). Use of thiazide-type diuretics did not increase nationally from 2000 to 2008.

Conclusion. The findings suggest that academic detailing has modest impact on improving adherence to evidence-based practice.

Commentary

The lag between research findings that support the use of a certain therapy and the widespread use of that therapy can be frustratingly long. Clinical leaders and policy makers have sought new approaches to encourage physicians to follow clinical guidelines and practice evidence-based medicine. While policy makers have focused on approaches such as public reporting and financial incentives for good performance, clinical leaders have often taken alternative routes, such as academic detailing. In this approach, well-respected clinicians meet with their clinical colleagues to educate them about practicing evidence-based medicine. Most of the data suggests that academic detailing can be effective, at least on a small scale. Few large, national efforts to use academic detailing have been previously evaluated. That is why this study by Stafford et al is so helpful.

In this evaluation, clinical investigators, many from the ALLHAT study (which showed convincingly the benefits of diuretic therapy for hypertension), were used to provide detailing to their colleagues. The sites for intervention were not randomly selected (although efforts were made to select geographically diverse educators). The investigators found that, at least based on the physician prescribing data, counties with more intensive academic detailing efforts seemed to have somewhat greater increases in diuretic use than counties with less intensive efforts. There was no such pattern in the database that examined pharmacy dispensing patterns.

What might this study tell us? First, the study seems to confirm that academic detailing likely has an impact and can change prescribing behavior among physicians. What is most striking from this study, however, is the very small size of impact. Despite the fact that the counties were not randomly chosen, that the academic detailers were well-respected clinical investigators in the community, and that

thiazide-type diuretics use is a treatment that is both cheap and effective, more than half the physicians in communities with even intensive academic detailing failed to provide this treatment.

Applications for Clinical Practice

Despite the limitations of the study, including its ecological study design (which prevented the direct assessment of whether a physician who received academic detailing changed his or her prescribing behavior), the investigators add useful information. If we expect patients to receive evidence-based care in a timely fashion, educational efforts such as academic detailing will not be enough. Stronger policies, such as robust public reporting and pay-for-performance efforts, will be needed to ensure that when the evidence is clear, all eligible patients get the right care.

—Review by Ashish K. Jha, MD, MPH