comparative effectiveness.[11] The AHRQ report at page 43 concluded, "With the possible exception of the study by Koylan et al., adherence with ACEIs and ARBs was similar (Table 7)." In the second study cited by Ram and Giles, the lisinopril (ACEI) group had a higher severity of illness and greater use of concurrent medication such as antihyperlipidemics, antiplatelet agents, and beta-blockers compared with the valsartan (ARB) group, and the adjusted adherence was statistically significant but not practically significant, 89.9% for lisinopril (95% CI, 89.3%-90.6%) versus 90.1% for valsartan (95% CI, 89.0-91.1%).[12]

For those who prefer trees rather than the forest, we recommend reading the 72 studies referenced in the 57-page AHRQ report on comparative effectiveness of ACEIs and ARBs and the 79 studies referenced in the 98-page NICE hypertension guideline; ACEIs and ARBs are clinically sufficiently similar to allow step therapy. Artificially limiting clinicians' ability to care for patients by selectively citing literature should be roundly condemned by all; likewise, selectively citing contrary outlier literature to support frivolous expenditure on costly medication that fails to provide unique benefits should be also be denounced in the public forum.

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The Hickory Project Builds on the Asheville Project—An Example of Community-Based Diabetes Care Management

To the Editor:

We read with interest the recent *JMCP* commentary calling for managed care organizations (MCOs) and community pharmacies to seize the opportunity to work together in chronic care and disease management.[1] Your readers may be interested in the Hickory Project, a disease management partnership developed to demonstrate the value of using community pharmacists and nurse practitioners as care managers to improve quality measures and positively impact patient health outcomes in Hickory, North Carolina, and the surrounding area. This combined effort includes the coordinating services of American Health Care (AHC), a pharmacy benefit manager and disease management company, and brings together Wells Fargo Insurance Services, community pharmacists, nurses, physicians, and support staff. One of the key functions of AHC is to integrate medical and pharmacy data for patients with diabetes who are enrolled in the disease management program. Lessons learned from the Asheville Project, also in North Carolina, are incorporated into the Hickory Project.

Pharmacists and nurse practitioners in the local community are recruited and held responsible for direct patient contact (to coach, encourage, and educate the patients) with a goal of achieving improved patient care and quality measures as outlined by a patient's physician and national guidelines. This project involves 9 independent community pharmacies, 7 nurse practitioner clinics, and AHC. Trained clinical professionals meet with each patient monthly to provide education and monitor health progress. The patient's weight and blood pressure are documented at each meeting, and lab values, self-monitoring blood glucose tests, and medications are reviewed. All interactions are recorded on a patient progress summary

form that is used to coordinate data between the patient and health care team members.

The first phase of this community-based patient care project was to organize a working procedure between AHC and the network of community pharmacists—and in some areas, nurse practitioners. The local pharmacists were recruited and disease-specific training sessions were provided. Disease-specific training was conducted through a combination of a Web-based program and fax transmissions. Successful completion of three 2.5-hour training sessions, followed by an examination of covered materials, conferred accreditation by AHC on the pharmacist as a "Hickory Project care manager." The total training time for certification was approximately 9 hours.

The training provided to the Hickory Project care managers was conducted to update them on the latest national guidelines and protocols for diabetes management. (Six nurse practitioners involved in the Hickory Project were not required to go through training because of their existing expertise in diabetes care management.) As of December 2006, 23 pharmacists had completed the training. An informal survey of the pharmacists revealed a high level of professionalism and a desire to be involved in a community-wide effort.

The value of community pharmacists in the delivery of disease management programs has already been successfully demonstrated in the Asheville Project. The Asheville Project, started in 1996, is a disease management program in which 2 large self-employed insurers in North Carolina offer services to employees, dependents, and retirees by community pharmacists for chronic disease states such as diabetes, asthma, and depression. The Asheville Project shows that patients with diabetes who participate in this long-term pharmaceutical care program use fewer sick days and achieve lower hemoglobin A1C levels as well as improved lipid levels, while employers have experienced a decline in mean total direct medical costs.[2] Physicians working with the Asheville Project pharmacists have been pleased with the quality of patient care and have seen firsthand the benefits of a coordinated collegial team effort in chronic disease state management. Because of monthly monitoring by the local pharmacist care managers, valuable physician time is saved, patient deficiencies are corrected, and complications are averted.

The need for quality disease management was summed up in a statement by the National Committee for Quality Assurance: "The fact that many Americans do not receive appropriate preventive care and care for chronic conditions like diabetes and hypertension also means that annually there are thousands of preventable second heart attacks, kidney failures, and other conditions such as painful and debilitating fractures from osteoporosis."[3] Several recent studies demonstrate that a handful of such conditions account for more than half of U.S. medical costs. As reported in *The State of Health Care Quality 2004*, more than $9 billion is lost in productivity and nearly $2 billion is incurred in hospital costs that could be avoided through more consistent delivery of best-practice care. "More than 14,000 heart attacks and strokes could be prevented each year through better diabetes management alone (A1C control)."[3]

Fred Eckel, who reviewed the Asheville Project, stated, "Based on our Asheville experience, it is apparent to us that disease management, or health management programs as I prefer to call them, will best be accomplished through local initiatives. Eventually, regional or national employers or payers may get into the act; but our greatest success will come through local projects."[4] To be successful, these local initiatives need to have answers to the questions regarding compensation of pharmacists for their services and "what's in it for me" for patients, physicians, pharmacists, and employers.

The Hickory Project identified prospective patients through analysis of medical and pharmacy claims, and these patients were invited to participate via employer information sessions and direct mailings on disease management. The patients who chose to be a part of the disease management program received reduced copayments or had copayment waiver for their management-related medications. Each patient was assigned a care manager who provided current medical and pharmacy claims data from AHC. The care manager was a local community pharmacist in most cases, and the reduced or waived copayments remained in effect for as long as the patient complied with scheduled appointments with the care manager. Patients received disease-specific information, a list of quality measures associated with their disease state (e.g., goals for A1C, blood pressure, and low-density lipoprotein cholesterol), and educational materials to instruct and encourage them about the importance of knowing and attaining each quality measure.

Most pharmacists would love to spend more time with patients, but they would quickly go out of business if they spent 15 minutes with every patient who had a chronic condition. The Hickory Project paid $30 to the pharmacy for every initial face-to-face pharmacist consultation with an enrolled patient (the sessions were anticipated to last about 30 minutes); each 15-minute follow-up visit was compensated at the rate of $15. Analysis of the adequacy of this compensation has not yet been conducted. Patient consultations are held in privately designated areas in the pharmacy.

New patients are assigned to the certified care managers, and the option of mail-order prescriptions was eliminated to facilitate more effective face-to-face interaction between the patient and the care manager. Most patients in the project receive their prescriptions from their pharmacy's care managers. The care managers receive a patient progress report each month from AHC via fax transmission that details the assigned patient's medical and pharmacy data and any deficiencies in quality measures. (The fax transmission of information is being replaced by an online, Web-based, interactive system accessible to the care team members.) This monthly updated patient record

TABLE Six-Month Data for First Group of 20 Enrolled Patients

Quality Measure	No. of Members (%)
A1C	
Below 7.0% at enrollment	8 (40)
Below 7.0% at 6 months	12 (60)
Blood pressure	
Below 130/80 mm Hg at enrollment	5 (25)
Below 130/80 mm Hg at 6 months	10 (50)
Blood glucose testing	
Self-test daily at enrollment	14 (70)
Self-test daily at 6 months	19 (95)
Annual eye examination	
Within previous 12 months at enrollment	10 (50)
Within previous 12 months at 6 months	13 (65)

A1C=hemoglobin A1C.

follows the progression of care and patient assessments and is forwarded to the attending physician as a precise record of goals met and goals needing improvement.

Patients also receive a "to do" list after each care manager appointment. The care manager talks to each patient about the importance of daily exercise, good nutritional eating habits, and the dangers of smoking; encourages the patient when it is time to see the physician; discusses needed lab tests; and reminds the patient to talk to a physician about specific quality measures needing attention.

The first employer group to sign on with the Hickory Project was the Hickory Springs Manufacturing Company, based in Hickory, North Carolina, and one of the nation's largest manufacturers of furniture (with 5,910 employees). Hickory Springs Manufacturing Company implemented this program, in part, on the basis of the reported success of the Asheville Project and to evaluate the financial results and health outcomes associated with a similar intervention for its own employees.

Baseline Measures

The following baseline findings were generated from an evaluation of the beneficiaries of 3 local employers interested in the Hickory Project before participant enrollment in the disease management project. From medical and pharmacy data, the need for such a project was confirmed. For the year 2005, 566 patients among these 3 employer-sponsored groups had an *International Classification of Diseases, Ninth Revision, Clinical Modification* code of diabetes (250). This correlates to a prevalence of 6.1%, based on the 9,282 total covered members included in the sample. Of those diagnosed members, 509 (89.9%) were taking antidiabetic medication, which included 448 members older than 40 years.

- 49/8% of these older members (223 members) were taking some type of lipid-lowering medication
- 56.3% (252 members) were self-testing blood glucose (STBG)
- 32.5% (146 members) were identified as having had a lipid panel performed within the 1-year period prior to participant enrollment
- 50.4% (226 members) received at least 1 A1C test
- 59.4% (266 members) were taking blood pressure medications

Six-Month Findings for the Hickory Springs Manufacturing Company

As of May 15, 2007, the Hickory Project had enrolled 134 members with diabetes (see table). Preliminary findings after the first 6 months for the initial group of 20 patients enrolled in November 2006 showed some improvement in blood pressure, A1C values, annual eye exams, and STBG, but opportunities to improve quality remain.

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DISCLOSURES

The authors disclose no potential bias or conflict of interest relating to this letter.

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