

Family Physicians: Exercise Testing and Community Needs

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The findings of Goeschel et al,¹ published in this issue of *The Journal*, are encouraging regarding the performance of exercise testing by family physicians. More than half of the Nebraska family physician respondents perform this procedure in their practices. This percentage is substantially higher than that reported in previous surveys of our specialty and suggests an ever-increasing trend toward adoption of exercise testing as a family practice procedure.^{2,3} It is equally encouraging that among study participants, the estimated average number of exercise tests performed each year by those who use the procedure was 21.2, a number approaching the 25-tests-per-year recommendation of the American College of Physicians, American College of Cardiology, and American Heart Association Task Force on Clinical Privileges in Cardiology as the minimal requirement for maintaining clinical competence.⁴

Among the interesting demographic findings revealed by Goeschel's survey was that physicians practicing in rural or "frontier" counties in the state of Nebraska were over four times more likely to perform exercise testing than were their urban counterparts ($P = <.001$). Even after adjusting for physician age or the nature of medical training, or both, rural-based physicians still were much more likely to perform exercise testing, especially if they practiced in a setting associated with an "isolation factor," such as being located a substantial distance from referral availability. All but 3 of the 29 respondents in the survey who practiced at a distance of more than 55 miles from the nearest cardiologist performed the test themselves. Overall, 74% of the 61 family physicians whose practices were situated in an area with

a population of less than 15,000 performed the procedure.

It should be emphasized that these results are likely to be at least partially "state-specific" and that they cannot be generalized to family physicians who practice in other parts of the country. Fully 70% of the respondents practiced in a rural area, and 85% of those who were performing exercise testing did so only in the hospital rather than in the office or elsewhere. This is in marked contrast to the physician distribution pattern that prevails in many other parts of the country. A very different exercise-testing practice profile might therefore be expected if a similar survey were to be conducted in other states with a more urban population and greater opportunity for cardiology referral.

Regardless of the setting and manner in which the issue is addressed, one conclusion remains inescapable: greater numbers of family physicians are performing exercise testing than was the case just a few years ago. Family physicians with an interest in this procedure should be performing exercise testing on their patients⁵⁻⁸ and are fully capable of doing so.^{6,8-10} If given the opportunity in a setting where need exists and referral resources are limited or nonexistent, an ever-increasing number will clearly prefer to assume this responsibility.²

A noteworthy finding in Goeschel's study was that family physicians who practiced in either a very rural or frontier community were able to obtain privileges for performing exercise testing on their patients in the hospital. It is not unreasonable to question why requests for similar hospital privileges by comparably trained and motivated family physicians who happen to practice in more urban-based settings (replete with cardiologists and internists) are so often met with resistance.

Of additional interest in Goeschel's study is the implication that an even greater number of family physicians would perform exercise testing if they had access to appropriate training for the procedure, felt they had time to include it in their practice, and thought they

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could afford the stress-testing unit. Access to training for performing the procedure, however, is widely available. More than half of the 309 family practice residency programs recently surveyed by Jacobson and Nuovo² already offer such training to their residents. Among those that do not, a majority of residency directors expressed definite interest in doing so. An increasing number of family practice faculty are residency trained and were taught to perform the procedure during their residency. A natural conclusion would be that a repeat of the 1988 American Academy of Family Physicians survey referred to by the authors would show residency training to have a much more important influence on the new graduates' decision whether to include exercise testing in their practices.¹¹ For family physicians already established in practice, training in how to perform exercise testing also is widely available in the form of continuing medical education programs and workshops.

Regarding cost, ability to meet the substantial start-up expense associated with acquisition of exercise treadmill testing equipment has been tremendously facilitated in recent years. Reimbursement for performing the procedure is considerable (usually ranging from \$150 to \$250 per test), and the tendency among new graduates of family practice programs to join group rather than solo practices makes purchase of a stress-testing unit a much more financially feasible option than it was in the past. A unit will usually pay for itself in surprisingly short order, given the overall cost-efficacy of performing the procedure.

Family physicians with an interest in exercise testing should be encouraged to acquire the training to perform the procedure on their patients. In addition to the usual indications for exercise testing, active involvement by the patient's family physician in performing the test may be the best way to provide optimal care for that patient in the most readily acceptable and cost-effective manner.¹² Rather than referral to a cardiologist with the undefined inquiry of "What do I do next?" exercise testing by the family physician in the office usually will enable such referral to be made much more appropriately with a more certain directive (eg, "This patient *needs* cardiac catheterization").

Clinically, inclusion of exercise testing in a family physician's array of diagnostic procedures increases physician confidence and security in evaluating and managing the overwhelming majority of patients who are seen in the office for chest pain.^{12,13} Exercise stress testing facilitates determination of the most appropriate and cost-effective approach to management of the patient's problem, whether it involves independent treatment by the family physician, additional outpatient diagnostic studies such as stress echocardiography or thallium im-

aging, or referral to a cardiologist for cardiac catheterization and possible revascularization by angioplasty or bypass surgery. It is important to remember that the presence of coronary artery disease per se does not necessarily mandate immediate catheterization or even referral.¹³ Medical management by itself usually will result in a relatively good long-term prognosis for patients able to complete stage IV of a standard Bruce protocol without developing limiting symptoms even if they are subsequently found to have significant underlying coronary artery disease.¹⁴

Exercise testing also may be used appropriately as a screening device for selected asymptomatic persons with one or more coronary risk factors as well as for those about to embark on a vigorous exercise program.¹⁵ Even if there were enough cardiologists in the country to perform exercise testing on all persons with potentially valid indications for the test, the fact remains that patients with minimal or no symptoms do not routinely present to a cardiologist's office with these concerns in mind.⁶ Finally, a case can be made for the family physician as the most appropriate person to perform exercise testing on patients who have moderate symptoms and risk factors and are otherwise functioning well. "Does it make sense to disrupt the family physician's care of an individual who has stable coronary artery disease with repeated cardiological consultations?"^{6,9}

Family physicians in rural settings accept the notion that physicians other than cardiologists and internists can perform exercise stress testing, and the number who do so is increasing. With appropriate training, family physicians can clearly acquire the skill to competently perform the procedure. As emphasized by Goeschel et al, national guidelines should acknowledge the need for family physicians to perform exercise testing and promote training in the procedure.

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