Survey III (NHANES III) data, which show a control rate (less than 140/90 mmHg) in patients on drugs of only 29 percent nationally, indicate that we should be working aggressively to get more patients on medication and under good control.8 As in the JNC V recommendations, patients with stage 1 hypertension should initially be advised to make lifestyle changes (weight loss, dietary sodium and alcohol reduction, increased physical activity). But many patients with stage 2 hypertension will ultimately need medications as well. Patients with stage 3 through 4 hypertension frequently initially require lifestyle changes and drug treatment. Once drugs are started, patients should continue with their medication, with goal blood pressures in those with uncomplicated hypertension ideally less than 130 mmHg systolic or 80 mmHg diastolic for optimal benefit to the patient. Although there are patients who make considerable lifestyle changes and succeed in drug withdrawal, the main priority for physicians is to get more hypertensive patients on lifestyle and drug treatments, not off.

Richard H. Grimm, Jr, MD, PhD Minneapolis, Minn

The author wishes to acknowledge and thank Jeanne Grimm, PhD, for her valuable assistance in preparing this paper.

## References

- Froom J, Trilling JS, Yeh S, Gomolin IH, Filkin A, Grimson RC. Withdrawal of antihypertensive medications. J Am Board Fam Pract 1997;10:249-58.
- Stamler R, Stamler J, Grimm RH, Gosch FC, Elmer P, Dyer A, et al. Nutritional therapy for high blood pressure. Final report of a four-year randomized controlled trial—the Hypertension Control Program. JAMA 1987;257:1484-91.
- 1993 Joint National Committee. The fifth report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC V). Arch Intern Med 1993;153:154-83.
- MacMahon S, Peto R, Cutler J, Collins R, Sorlie P, Neaton J, et al. Blood pressure, stroke, and coronary heart disease. Part 1. Prolonged differences in blood pressure: prospective observational studies corrected for regression dilution bias. Lancet 1990;335:765-74.
- 5. Neaton JD, Grimm RH Jr, Prineas RJ, Stamler J, Grandits GA, Elmer PJ, et al. The Treatment of Mild Hypertension Study: final results. Treatment of Mild Hypertension Study Research Group. JAMA 1993; 270:713-24.

- Grimm RHI Jr, Grandits GA, Cutler JA, Stewart AL, McDonald RH, Svendsen K, et al. Relationships of quality of life measures to long-term lifestyle and drug treatment in the Treatment of Mild Hypertension Study (TOMHS). TOMHS Research Group. Arch Intern Med 1997;157:638-48.
- 7. Pearce KA, Grimm RH Jr, Rao S, Svendsen K, Liebson PR, Neaton JD, et al. Population-derived comparisons of ambulatory and office blood pressures. Arch Intern Med 1992;152:750-6.
- Burt VL, Cutler JA, Higgins M, Horan MJ, Labarthe D, Whelton P, et al. Trends in the prevalence, awareness, treatment and control of hypertension in the adult US population. Data from the health examination surveys, 1960 to 1991. Hypertension 1995; 26:60-9.

## The Role of Procedures in Family Practice: Is There a Right Answer?

As family medicine matures and attempts to define its scope, as managed care programs move patients out of hospital settings, and as a progressively increasing percentage of health care services are performed in ambulatory settings, a large number of thorny questions arise regarding the proper role of procedures in family practice. The article by Prislin, Dinh, and Giglio<sup>1</sup> in this issue of the *Journal* addresses the following general and specific questions:

What is the impact of incorporating procedural activities into the clinical domain of family practice?

What effect does the availability of a procedure (in this case colposcopy) within a family practice clinic have on the test-ordering behavior of the physicians practicing there?

What effect does the availability of a diagnostic procedure within a family practice clinic have on the compliance of patients for whom the procedure is recommended?

Submitted 21 February 1997.

From the Dean's Office and the Department of Family Medicine, University of Washington School of Medicine, Scattle. Address reprint requests to Thomas E. Norris, MD, Office of the Dean, School of Medicine, Box 356340, University of Washington, Seattle, WA 98195. How much revenue is generated by adding a new diagnostic procedure to a practice, and does the potential of revenue generation from a procedure cause physicians to order the procedure inappropriately?

The appropriate place of procedures within the melting pot of activities and pursuits that comprise family medicine is unclear. There is much variance in the frequency of ownership of procedures by family physicians from rural to urban settings and among the geographic regions of the United States.<sup>2</sup> Several recent studies have attempted to describe the current frequency with which procedures are performed and the role of these procedures in both community and academic family medicine practices<sup>3,4</sup> Other recent articles have addressed the propriety and appropriateness of family physicians as proceduralists.<sup>5,6</sup>

Prislin and his colleagues have moved these research efforts a major step forward by attempting to consider the impact of adding a specific procedure to the practice at a family medicine clinic. Only by beginning to understand the effect of a procedure on a clinic, a group of patients receiving care, and a group of physicians providing care can we hope to begin to address the tantalizing questions concerning the proper role of procedures in family practice.

Much has been written about the desirability of studying the clinical outcomes that result from diagnostic and therapeutic interventions. If, when the diagnostic or therapeutic procedure in question is performed by family physicians in a family practice setting, these outcomes are beneficial for the patients (assuming the costs or risks are not excessive), then and only then can we start to understand and judge the appropriateness of the role of that procedure in family medicine. By studying the impact and outcomes of adding colposcopy to their practice, measured in terms of physician management of abnormal findings on Papanicolaou smears, patient compliance with physician recommendations, and revenue generated, the authors have expanded the dimensions of procedural study past the bounds of simple descriptions and anxious concerns about propriety and identity. In these ways this study represents a major step forward.

Although successful in many ways, the study by Prislin et al is inconclusive. The major problem, in my opinion, is that the study did not address

the question of whether providing colposcopy by family physicians in the family practice clinic setting was clinically beneficial to the health of the patients in question. Although outcomes were studied, this critical one was not addressed. The other problems that make it difficult to assess the meaning of this study are that the patient population might not have been typical of family practice clinics, because it represented an urban underserved site; the sample size was too small for many valid comparisons; and large numbers of records from the two early groups were lost, introducing a serious possibility of bias. Nevertheless, the authors correctly point to several valid conclusions that can be drawn as a result of their work. In spite of these problems, this study has elevated procedural research in family medicine to a new level.

So what is the right answer regarding the role of procedures in family practice? Although it is not clear yet, the process through which we might approach the question has been illuminated by the study here. The next task for academic proceduralists in family medicine will be to design studies that adequately measure the clinical outcomes of procedures performed by family physicians, as determined by their effects on the health of the patients involved. When the results of those studies are analyzed, the path to the right answer will be shorter.

> Thomas E. Norris, MD Seattle, Wash

## References

- 1. Prislin MD, Dinh T, Giglio M. On-site colposcopy services in a family practice residency clinic: impact on physician test-ordering behavior, patient compliance, and practice revenue generation. J Am Board Fam Pract 1997;10:259-64.
- 2. MFP—facts about family medicine. Kansas City, Mo: American Academy of Family Physicians, 1996.
- 3. Norris TE, Felmar E, Tolleson G. Which procedures should be currently taught in family practice residency programs. Fam Med 1997;29:99-104.
- 4. Phillips WR. Diagnostic and screening procedures in family practice. Past, present and future use. Arch Fam Med 1993;2:1051-7.
- Dietrich AJ, Kotrady KP. Procedures in family practice. What's best for your patients and for you. Arch Fam Med 1993;2:1028-30.
- 6. Brady H, Alexander GP. Reflections in family practice. Family physicians as proceduralists: striking a balance. J Am Board Fam Pract 1995;8:58-61.