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The article "Quality improvement initiative for rapid induction of hypertension control in primary care" by Aanand D. Naik, M.D.; Elisa Rodriguez, B.S.; Radha Rao, M.D.; Dian Teinert, R.N., M.S.; Neena S. Abraham, M.D.; and Jagadeesh Kalavar, M.D., appeared in the September 2010 edition of Circulation: Cardiovascular Quality and Outcomes. Naik is a researcher and physician at the Michael E. DeBakev VA Medical Center (MEDVAMC) and is affiliated with Baylor College of Medicine. Kalavar, the other author quoted in this newsletter, is the chief of staff at MEDVAMC.



HEALTH POLICY research

James A. Baker III Institute for Public Policy-Baylor College of Medicine Joint Program in Health Policy Research

What does it take to address the quality gaps in routine hypertension care?

"We need to focus on how hypertension care is delivered and not just finding the newest medications," says Aanand D. Naik, M.D., a researcher and physician at the Michael E. DeBakey VA Medical Center (MEDVAMC), who believes improving hypertension control in primary care is often neglected. To remedy this in VA primary care, he states, "We have focused intently on performance management, and this focus has led to the development of innovative and effective methods of delivering care for chronic illnesses like hypertension."

In 2006, MEDVAMC implemented a successful quality improvement study using existing resources and personnel to improve hypertension outcomes in primary care. Naik says, "Most patients who followed our program achieved control within six weeks and maintained it for the next year." Group medical clinics, intensive appointment scheduling within a brief period and standardized measurement techniques were all utilized to focus the efforts of patients and staff on lowering blood pressure.

In the study, 504 veterans with treated, but uncontrolled, hypertension made group clinic visits every other week for a maximum of six weeks. Blood pressure measurements were taken at each session and were compared against targeted levels. If the patient's blood pressure remained uncontrolled, clinicians escalated treatment. The mean reduction in systolic blood pressure was just over 20 mmHg for all patients, and 53 percent achieved and maintained control through the following year. The most important factor influencing a patient's success was adherence to a rapid induction protocol, consisting of a group clinic visit every two weeks for six weeks or until blood pressure fell within the controlled range. Adherence to the rapid induction protocol also predicted hypertension control over a oneyear follow-up period even after factoring patients' clinical and demographic characteristics.

Rapid induction of hypertension control is increasingly advocated as a method for overcoming the quality gaps that plague chronic hypertension care. This quality gap, often called therapeutic or clinical inertia, exists despite the availability of medications. Therapeutic inertia is often attributed to uncertainties about blood pressure

measurements taken in the doctor's office versus one's home, concerns about medication side effects by patients and reluctance to intensify medication doses or regimens by physicians. Rapid induction seeks to overcome these issues by establishing clear blood pressure goals, contrasting those goal numbers with current measurements and setting a firm deadline for achieving blood pressure goals — usually six weeks to three months. Frequent encounters to measure blood pressure also create an explicit understanding that treatment will be intensified (or modified if side effects occur) if blood pressure goals aren't achieved.

Rapid induction can be conducted using individual or group medical appointments; it involves a range of clinicians who use evidence-based pathways for intensifying therapy and use frequent measurements to reduce uncertainty about blood pressure levels. For the VA study, the clinical team chose to use group medical clinics conducted over six weeks with a variety of different clinicians responsible for specific tasks related to monitoring, treatment intensification and medication dispensing. This approach matched the strengths of the clinical setting to the scientific principles of rapid induction therapy.

Since this study, group clinics have been among the methods used to significantly improve hypertension control rates in primary care at MEDVAMC. The percentage of patients with their hypertension under control in primary care at MEDVAMC increased significantly from 54 percent in 2005 to more than 75 percent today as part of a comprehensive focus on hypertension outcomes. "As Medicare and private insurers move to pay-for-performance reimbursement systems, the rapid induction group clinic may be an effective method of improving the quality of routine hypertension care," said Jagadeesh Kalavar, M.D., MEDVAMC chief of staff and an initiator of the project. "The results of this important study suggest this approach can be implemented into a primary care practice and produce results similar to those described in clinical trials."

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HEALTH POLICY research presents a summary of findings on current health policy issues. It is provided by the James A. Baker III Institute for Public Policy's Health Economics Program in collaboration with the Baylor College of Medicine's Section of Health Services Research in the Department of Medicine.

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