Time to Unveil the Risk of Imaging to Patients

Despite the increased attention to the radiation risks of computed tomographic scans, this Research Letter by Caverly et al illustrates that most patients who are undergoing imaging tests are not aware of the associated risks of radiation exposure. It is likely that many physicians also do not know the risks, and so it is not surprising that even when there are discussions with patients about risks and benefits of the procedure, patients clearly still do not understand the true risk of radiation exposure. If we are to achieve optimal shared decision making on the decision to undergo imaging studies, much work needs to be done in educating physicians on the magnitude of radiation used for commonly used computed tomographic scans and the risks of radiation exposure so that we can unveil the true risk of imaging radiation exposure to our patients. This information, presented in a way that assures patient understanding of the risks, should be part of every discussion surrounding the decision to image.

Patrick G. O’Malley, MD, MPH

RESEARCH LETTERS

Benefits of Participation in Diabetes Group Visits After Trial Completion

Group medical clinics (GMCs) represent a potentially scalable and sustainable intervention for patients with diabetes.1 A recent trial randomized 239 patients with uncontrolled diabetes (hemoglobin A1c [HbA1c] level ≥7.5%) and hypertension (blood pressure [BP] ≥140/90 mm Hg) to GMC attendance every 2 months for a year or usual care. Each session included group education and structured group interactions moderated by a registered nurse or certified diabetes educator. Individual medication adjustments were made by a pharmacist and general internist to manage HbA1c, BP, and cholesterol.2

Group medical clinic patients had greater reductions in systolic BP (SBP) (−7.3 mm Hg)2 and low-density lipoprotein cholesterol (LDL-C) levels (−9.2 mg/dL)3 than usual care patients. The purpose of this Research Letter was to examine the economic and clinical benefits of GMC attendance 18 months following completion of the trial.

Methods. Expenditure and utilization outcomes were obtained from Department of Veterans Affairs (VA) claims data,4,5 and expenditures were inflation adjusted to 2010 dollars. Outpatient expenditures, total expenditures, and probability of inpatient admission during seven 6-month periods (2 prior to, 2 during, and 3 after the trial) were modeled using generalized estimating equations. These models included treatment arm, indicators for each 6-month period, and interactions of treatment and period for the five 6-month periods following intervention initiation.

Systolic BP, LDL-C, and HbA1c measurements were ascertained from the VA electronic health record taken during any outpatient visit in the 42-month observation period. Unlike study-specific outcome values obtained at baseline, 6 months, and 12 months during the trial, each patient in this follow-up study had a varying number of clinic-based outcomes that were captured at different time intervals. There were natural transition points at baseline and trial conclusion, so piecewise quadratic mixed-effects models were fit with treatment by time interactions moderated by a registered nurse or certified diabetes educator. Individual medication adjustments were made by a pharmacist and general internist to manage HbA1c, BP, and cholesterol.

The GMC trial2 was approved by the institutional review boards of the Durham, North Carolina, and Richmond, Virginia, Veterans Affairs Medical Centers (VAMCs). The follow-up study reported herein was approved by the Durham VAMC institutional review board.

7. Takakuwa KM, Estepa AT, Sholer FS. Knowledge and attitudes of emergency department patients regarding radiation risk of CT: effects of age, sex, race, education, insurance, body mass index, pain, and seriousness of illness. AJR Am J Roentgenol. 2010;195(5):1151-1158.