

Are RRNET Physicians Addressing The American Diabetes Association Standards of Care?

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Introduction

Proper diabetes management can prevent acute and long-term complications. Annually, the ADA publishes standards of medical care for diabetes. Key elements for clinical management, the ABCs of diabetes, include A(1c), blood pressure, cholesterol and aspirin use.¹ This is to aid the physician in keeping up with a multifactorial intervention which has shown benefits.² The ADA recommends measuring hemoglobin A(1c) twice a year for those meeting goals and four times a year for those who are not. They recommend that blood pressure be read on every office visit. Doctors should take cholesterol readings at least every year for adults to achieve goals and at least once every two years for those with low-risk values. The ADA also recommends that all adult diabetics take aspirin.³

The purpose of this analysis was to examine how often the physicians in the Residency Research Network of Texas (RRNet) applied the recommended guidelines to patients with diabetes. The analysis also examined differences between patients who received and did not receive the recommended care today. It has been shown that among those with an elevated A(1c), more presenting problems is correlated with fewer changes in medications.⁴ Therefore, we hypothesized that a visit focused on a new problem would be less likely to include care for a chronic disease like diabetes. We also predicted that patients who visited the clinic more frequently had more opportunities for ADA guided care throughout the year, and were less likely to get diabetes care today.

Methods

Subjects. Medical students documented 726 outpatient visits from 9 family medicine residency programs in RRNeT to determine the breadth of practice in these primary care clinics. Eligible patients included all patient-visitors seeing a physician in the study clinics during the study period. Patients' ages ranged from infants to 97 years old.

Measurement. A Visit Survey documented elements of each primary care visit, including patient demographics, vital signs, reasons for visit, diagnoses, health education, medications prescribed, diagnostic tests ordered, nonmedical treatments, referrals to specialists and admissions to hospitals. Study materials were available in Spanish and English. Our data allowed us to evaluate four factors related to diabetes care: "A" hemoglobin A(1c), "B" Blood Pressure, and "C" Cholesterol and Aspirin use for its role in preventing CVD.

Procedure. Over a one-month period, students identified half-days for data collection, then randomly selected a physician to shadow. During the physician's clinic session, the student invited all the physician's patients to participate in the study. After informed consent, students observed the visit and completed the Visit Survey.

Conclusions

Blood pressure was near the expected rate of 100%. Aspirin was very low, reflecting a deficiency in the care being delivered to diabetic patients, or a deficiency in reporting OTC medicine use on patients' charts. In its guidelines, the ADA puts stress of Diabetes Self-Management education (DSME). The poor compliance or communication regarding the importance of aspirin use reflects a possible breakdown in education for diabetic patients.

Our A(1c) and Cholesterol testing rates indicate infrequent application of ADA guidelines. We found that patients without A(1c) and cholesterol testing today had more previous visits and thus more opportunities before today to get the tests. We also found that patients with new problems were less likely to get A(1c) and cholesterol testing. The 'competing demands' of additional health concerns may have reduced the likelihood that their doctors would apply the standard diabetic care during those visits. It is possible that no benefit would come from testing in the visits where the guidelines were not applied. A future longitudinal study should track the reasons given by doctors for the why they did or did not provide diabetes care in a particular visit in comparison the their testing history in order to determine how many patients are meeting their testing guidelines.

Acknowledgements

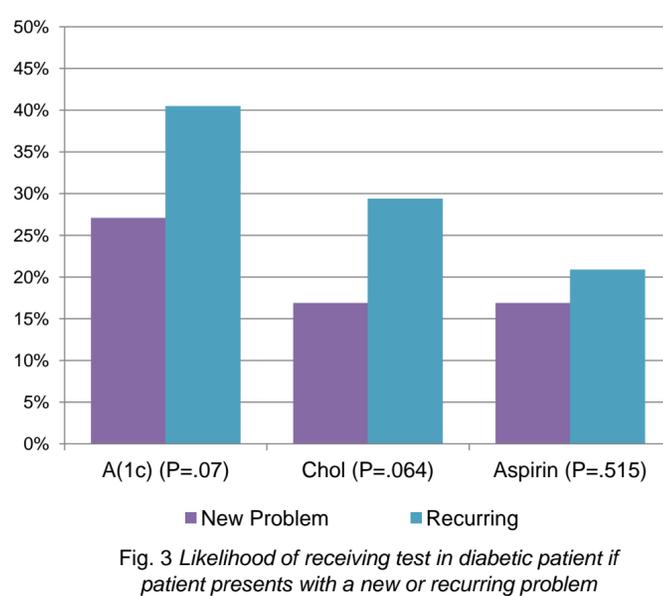
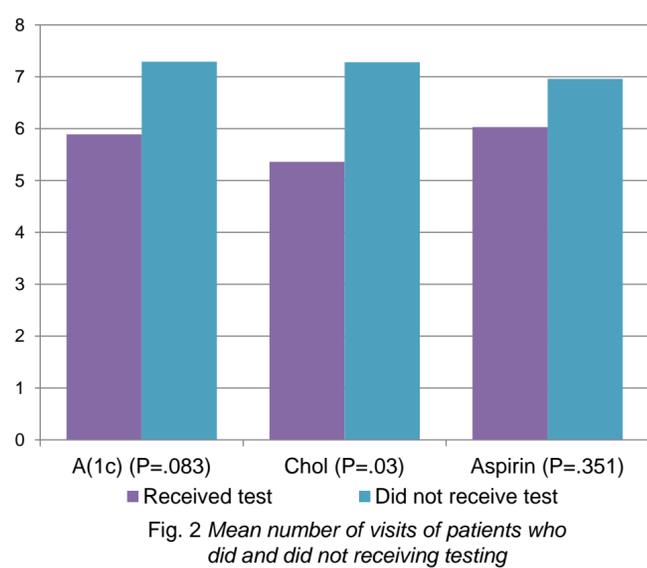
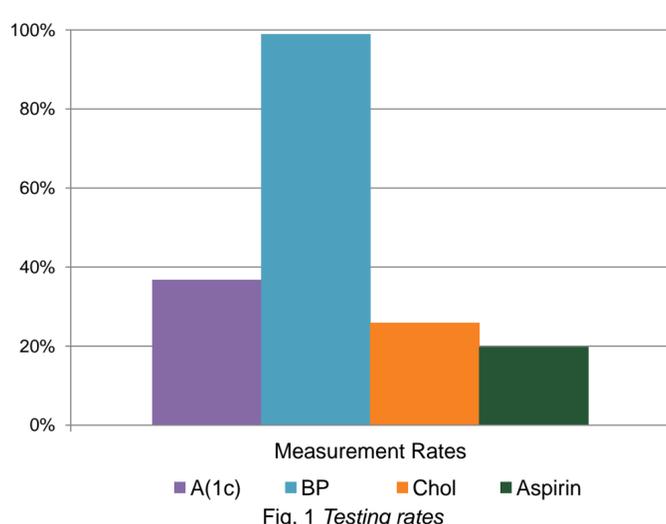
1. This study was conducted in The Residency Research Network of Texas (RRNeT) with support from the Office of the Medical Dean at UTHSCSA and the Health Resources and Services Administration (Award # D54HP16444).

Results

Of 726 visits, 212 were adults with diabetes. They were 67.9% female. The mean age of the diabetic adults was 56.4 and the mean number of visits in the last year was 6.79. They self-reported ethnic/racial background as 64.2% Hispanic, 18.9% Caucasian, 13.7% African American, and 2.4% Asian.

36.8% of visits had an A(1c). 99% of visits had a blood pressure measured. 25.9% had a cholesterol reading, and 19.8% reported taking aspirin. (fig. 1)

When presenting with a new problem patients were less likely to receive either an A(1c) or a Cholesterol test. (fig. 2) Those who received an A(1c) or Cholesterol test today had fewer visits in the past year (fig. 3)



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