Author's response to reviews

Title: The Use of Clinical Guidelines Highlights Ongoing Educational Gaps in Physicians' Knowledge and Decision Making Related to Diabetes

Authors:

Mark D Corriere (mcorrie1@jhmi.edu)
Laura B Minang (lbminang@gmail.com)
Stephen D Sisson (ssisson@jhmi.edu)
Frederick L Brancati (fbrancat@jhmi.edu)
Rita R Kalyani (rrastogi@jhmi.edu)

Version: 3 Date: 15 May 2014

Author's response to reviews: see over
May 15, 2014

Dear Dr. Marques:

Enclosed is a manuscript for review titled, “The Use of Clinical Guidelines Highlights Ongoing Educational Gaps in Physician’s Knowledge and Decision Making Related to Diabetes”, for consideration by BMC Medical Education.

This study highlights existing educational gaps in diabetes care and explores the use of clinical diabetes guidelines among a cohort of practicing clinicians. Participants were surveyed to explore their use of clinical diabetes guidelines, their diabetes knowledge, and their diabetes related decision making.

We report that educational gaps are apparent both in providers that routinely use diabetes clinical guidelines (Guideline Users) and those that do not (Non Guideline Users), but may be reduced in guideline users. This is illustrated by relatively notable proportions of physicians in both groups reporting unfamiliarity with insulin as a barrier to its initiation (Guideline Users 12.7% and Non Guideline Users 26.1%). Overall educational deficits were also demonstrated by an insufficient percentage of providers in both groups understanding available diabetes treatments in their practice (Guideline Users 67.3% and Non Guideline users 40.7%).

Other key findings of our study are: 1) only 53% of the physician cohort routinely uses diabetes clinical guidelines, 2) Guideline Users scored significantly higher in a 5 question diabetes knowledge assessment compared to Non Guideline Users (mean score 3.37 ±0.072 vs. 2.76±0.084; p<0.001), 3) Guideline Users were three times more likely to have a good understanding of type 2 diabetes medications (OR=2.99, 95% CI 1.95-4.61; p<0.001), and 4) Non Guidelines Users were nearly two and half times more likely to report being unfamiliar with insulin as a barrier to early initiation of the medicine (OR= 2.43, 95% CI 1.26-4.72; p=0.007). These associations were independent of key covariates such as specialty and frequency caring for patients with diabetes.

Our findings demonstrate that significant gaps exist among physicians with regard to diabetes knowledge and diabetes related decision making. These gaps are highlighted by categorization of physicians into those who routinely use clinical guidelines compared to those who do not. Use of clinical guidelines for diabetes and other chronic diseases may serve as an important educational tool to improve knowledge, decision making and ultimately, patient outcomes and should be explored in future studies.

Thank you for your consideration.

Sincerely,

Mark Corriere, MD, FACP
Division of Endocrinology, Diabetes, and Metabolism
Johns Hopkins University School of Medicine