Reviewer’s report

Title: Metabolic control in a nationally representative elderly sample in Costa Rica: patients at community health centers vs. patients at other health care settings.

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Reviewer: John Piette

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General Comments

As the authors themselves point out, large, rigorously executed studies are rare in developing countries of Latin America and elsewhere around the globe. However, in this study, the investigators present a very well done study of diabetes patients’ physiologic control in Costa Rica, that also includes some potentially important comparisons of diabetes outcomes across treatment sectors. Despite a few typos, the paper is very well written and clear.

Specific Comments

Attention to a few issues could improve this already well-done study:

Most importantly, the authors use the ADA standards for glycemic control as their metric for achieving physiologic targets. It is increasingly widely accepted that ADA goals are very aggressive, not relevant for some patients, and even potentially harmful. For example, a HbA1c of < 7% is probably unattainable in an elderly patient with diabetes who have an A1c of 7.4% and will have very little if any impact on that patient’s risk for adverse outcomes. Using these very strict guidelines can be dangerous because it may lead to over-use of medications (something health systems and patients in places like Costa Rica can ill afford) and will likely lead to increases in hypoglycemic reactions. The authors should review studies by Rodney Hayward, Sandeep Vijan, and others. Two of these are being sent along with this review. In light of these reports, the authors should consider examining the prevalence of patients who meet a more clinically meaningful cutoff for A1c (e.g., >9%), or even better, using different cutoffs based on patients’ age. As a more minimalist revision, the authors should make the point in their discussion that 7% A1c is not necessarily a goal for all patients and that many of the 37% of patients in Costa Rica with an A1c > 7% may actually be at an appropriate clinical level. Similar comments could be made about ADA standards for blood pressure and lipids, although the issue is perhaps most important with respect to aggressive control of glycemia.

A somewhat smaller issue is that the question used to identify patients with diabetes â€” Has a doctor or medical personnel ever told you that you have diabetes or high blood sugar levels, â€” is sensitive but not specific, in that patients without diabetes but with impaired glucose tolerance or even a 1-time
elevation in glucose could be captured in the sample. As such, average A1c’s may be biased downward from what they would be in a sample that used a more rigorous definition of diabetes.

The authors note that all patients have health insurance, but it would be very useful to have some more detail about that coverage. Do patients pay co-payments? What for? Do they pay copays for diabetes-related medications? Is coverage the same in community and other health care settings? How might differences in insurance coverage affect patients’ diabetes care and outcomes?

In a similar way, it would be useful to have some information — even if it is somewhat anecdotal — about the processes of care in each sector and how those might contribute to patients’ physiologic health. For example, how many visits do patients have annual in clinics? Are there care management programs? Diabetes education? Are services similar across sectors? To what do the authors attribute the impressive glycemic control of patients? What lessons are there in Costa Rica’s successes that could help other countries in Latin America?

p. 12, first paragraph: The authors refer to “physician control.” I know this is a common term in Spanish, but most English speakers will be less confused by “physician visits” (if that is what is meant here).