Reviewer's report

Title: Waiting to see the specialist: Patient and provider characteristics of wait times from Primary to Specialty Care.

Version: 1 Date: 19 November 2013

Reviewer: Michael F Harris

Reviewer's report:

1. The research objectives are well defined.
2. The methods are appropriate and well described.
3. The underlying data appear sound, but I have concerns about the data analysis (see below).
4. Relevant reporting standards have been used.
5. I have concerns about the discussion and conclusions (see below).
6. The limitations were not clearly stated.
7. The background was clear and acknowledged.
8. Title: this is appropriate. Abstract: three of the sentences in the results section are unclear (see below). The wording of the part of the abstract’s conclusion is unclear.
9. Some of the writing is unclear (see above and below).

Minor essential revisions

“Canada ranked 7th out of seven industrialized countries on timeliness of care.” It’s not clear what “timeliness of care” means here.

“This study included physicians who agreed to participate in EMRALD as of the January 2009 extraction” What proportion agreed to participate?

“CPDB” This abbreviation is not explained.

An explanation of what the multivariate analysis does differently to the bivariate analysis would be helpful, and tables of the multivariate data need to be provided.

“NPS report” Needs to be written in full.

“Busier practices may have higher referral rates and therefore longer wait times.” Can’t the researchers confirm this from their data?

“The actual wait times from primary care to specialty care are long in Ontario.” That is a value judgment, as depends on what one considers long. Many of these wait times would be considered to be short in my own health-care system.

“Conclusions” These don’t comment on the second study objective.

Table 1: needs absolute values, not just percentages. “Family practice and emergency room care”: the significance of this isn’t explained and won’t be
obvious to many readers.

Table 2: needs absolute values, not just percentages.

Were all EMR specialist categories included? Gynaecology, paediatrics, neurology, endocrinology, geriatric medicine, renal medicine, vascular surgery: it may be that some of these may not be handled by GPs in Canada, but surely some are, and why were they not included?

Major compulsory revisions

The authors needed to use a multiple testing correction to avoid errors in inference, e.g. Bonferroni correction. If this wasn’t done, it needs to be. If it was done, that should be made clear.

“Physician practice location was associated with wait times for most specialists.” and “Practice location is the most consistent influence on wait times.” These statements are misleading, as the longer wait times were sometimes associated with metropolitan, sometimes with suburban, sometimes with rural practice location. Perhaps “Practice location causes the most variation in wait times” would be a better description.

“As seen in other studies comparing patients seen in different primary care delivery models, differences were seen in wait times to specialists between capitation-based primary care models compared to other models.” Again, misleading as the data showed differences in both directions.

An objective study of waiting times is potentially worthwhile, but the lack of totals in Tables 3 & 4 mean that any key messages are lost in a mass of detail. It is of little use to know that “FPs in rural practices had longer wait times for referrals to urology and ENT. FPs in suburban practices had longer wait times for dermatology and orthopedic referrals. Metropolitan based FPs had longer gastroenterology and general surgery wait times” unless there is a hypothesis as to why practice site might have longer waits in some specialties and shorter ones in others. I suspect that with a multiple testing correction, many of these “significant” differences would be found to be due to chance (but please ignore this sentence if a multiple testing correction has already been made).

What would be more useful would be to look at patient factors and patient characteristics and give overall (i.e. all specialties combined) median and 75th values for each of them (with, if the authors wish, combined values for all the medical, also all the surgical, specialties.

A statistical analysis could find out which of the patient factors, and which of the physician characteristics, make the most difference to overall waiting times.

Abstract

“Patient age, sex, comorbidity and SES were associated with a few specialist wait times. Physician practice size, physician gender and type of FP practice were associated with some specialist wait times. Physician practice location was associated with wait times for most specialists.” These sentences don’t mean anything. They probably mean “…were associated with the most variation in specialist wait times”. Comments as above.
“Actual wait times for a referral from a FP to seeing a specialist physician are not insignificant.” This sentence is unclear, but I think it means “waiting times are long”, in which case, long in comparison to what?

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests