Author's response to reviews

Title: Utility of routine data sources for feedback on the quality of cancer care: an assessment based on clinical practice guidelines

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Author's response to reviews: see over
Reviewer 1

Abstract
Methods: The first sentence (and later text) covers a great deal of ground that may not be obvious to readers. The most critical is that guidelines do not provide measures. Guidelines use evidence to describe best practices, but the creation of measures is an exhaustive process in which a numerator and denominator must be specified in sufficient detail to enable others to consistently calculate rates; (for example, identify who should be included or excluded in both numerators and denominator.

We should have made this distinction clearer. Rather than “feedback measures” we now refer to “processes-of-care” throughout the Abstract and the manuscript. Information about guidelines versus feedback measures is now given in the Discussion (page 12, paragraph 3).

The following comments are all discretionary.
The text might be edited to read …a list of processes.”
A clarification in the following sentences could read “, …according to the availability of data. The categories represent increasing cost per variable.”

We have modified the last sentence in the Abstract(Methods) to improve clarity as suggested.

Results: It is tempting to read the “further…%” as cumulative. However, category 3 is “extended” (that is, longitudinal), so they are not cumulative. The authors might comment on this.

Text changed to improve clarity.

The fourth category seems to be missing in this discussion.

A sentence about the results for the fourth category has been added.

Manuscript text
The authors might note that the most comprehensive sources—record review or observational sources are likely to be the least standardized and comparable.

Added to Discussion (p 11, paragraph 1, last sentence)

The 2nd paragraph on California. It is not clear whether the problem was the cost of adding routinely collected variables or the cost of collecting information about specific quality measures. It would be very helpful to distinguish the cost of adding data elements to population based databases vs. the cost of retrieving data for special studies.

Text changed to improve clarity.
Methods: It would be helpful to provide examples of at least the first two types of data sources for readers who are not familiar with Australian databases or to specify whether the categories are intended to include other databases as well, such as US SEER databased, state-based registries, and the National Cancer Data Base (American College of Surgeons).

In Australia, claims or billing data (which we have called administrative inpatient data in this paper) covers the entire population including all hospitals (public and private) and all age groups. In Australia, population-based cancer registries also cover the entire population. This is now made clearer in the Discussion (p 12, paragraph 6); also see reply immediately below. The National Cancer Data Base (American College of Surgeons) would be classified as core clinical registry; and this is now mentioned in the Methods (p6, paragraph 2).

Results
Population-based registry. It is not clear to me what linkage is being referred to. In the US, for example, SEER is a representative sample, and linked to Medicare claims data or those 65 and older. But this is only a partial solution where there is no national database. Is there a different linkage being referred to here?

We are referring to linkage of claims data to a population-based cancer registry. We agree that in the US linkage of SEER to Medicare claims data would only be a partial solution because it only covers part of the population; this is now mentioned in the Discussion (page12, paragraph 2).

“…clinical registries…debatable.” An interesting point and it would be helpful to explore the tradeoffs between cost and potential gains.

In most jurisdictions, clinical registries do not cover smaller hospitals, but numerous studies on volume and quality-of-care suggest that these might be the hospitals where the most gains to be made. We agree that it would be helpful to numerically assess the trade-off: costs of collecting data and providing feedback to small hospitals versus QALYs gained, but this is outside the scope of the current study.

Discussion
The authors might mention the potential of electronic databases that could “roll up” data elements routinely gathered as part of clinical care as a way out of the conundrum of study-specific data collection.

Electronic capture of elements of clinical care has not really fulfilled its promise. It might be a viable option in the medium term. We do not think we can properly discuss the many complex aspects of electronic capture within the framework of this current paper.

The authors might note that feedback is essential, but not self-implementing for improvement.- The most useful feedback tends to be detailed enough to indicate where clinicians might focus. I believe the logic model being described is the following: evidence to guidelines- to node selection – to measure development – to accurate and timely measurement of compliance–
to feedback to hospitals and their clinicians who determine priorities for improvement – to clinicians and staff who develop implementation plans. This would be an iterative process in which repeated measurement shows improvement/no improvement with feedback to clinicians and/or refinement and updating of measures based on new evidence, data availability, and resources.

This is now mentioned in the Discussion (p12, paragraph 3).

The authors might mention that a number of cancer-related measures have been developed already that are based on data availability; for example Desch et al., 2008 and the ASCO-NCCN measures.

The Desch paper and the web site are now referenced (p12, paragraph 3).
Reviewer 2

Major Compulsory Revisions
1. RE: Paragraph 6 in methods: One might argue that some feedback measures that deal with information sharing between clinicians and patients could be placed in Category 3 since some things that should be documented routinely could be evaluated in medical records. How was this decided?

Any guideline that involved information sharing between clinicians and patients was allocated to category 4. This was because Walter et al [ref 17] found that such information is inconsistently recorded in medical records.

2. Under assessment of methods, specific rules are not given for how it was decided which category a measure belonged in. If, for example, a measure could be evaluated better in a higher, more expensive category, yet it was possible to evaluate it within a lower category, how was this dealt with?

It was allocated to the lower (less expensive) category. This is now made clear under Assessment in the last paragraph of the Methods.

3. I did not understand the meaning of the first sentence of the second paragraph, “The primary purpose of routine-inpatient data is related to funding hospitals and measuring their outputs….” My first thought would be that the primary purpose of routine-inpatient data is to care for patients, but I sense that you mean something else here?

We have re-written this to read “The primary purpose of administrative inpatient data is related to billing patients and funding hospitals, …”

4. The wording of the third paragraph in the discussion section was unclear. I think you mean 40% of the guidelines are not routinely measured because population-based data on prognostic factors are not collected. Is that correct? I misread it originally to mean 40% more guidelines as a relative percent instead of an absolute percent. The second sentence in that paragraph is also not clear.

We have deleted this paragraph because it is confusing and the information is already contained in Table 2.

Minor Essential Revisions
5. The fourth paragraph in the discussion section might be better placed earlier, especially since you already have this information listed in Table 1 under category 2.

Now paragraph 3.

6. What is meant by management surveys in the last paragraph?

We agree this is confusing, given that category 3 includes medical record review. We have re-written the last paragraph.
Discretionary revisions

7. Can electronic medical records be helpful in providing feedback in the Category 2,3, and 4 areas?

Electronic capture of elements of clinical care (electronic medical records) has not really fulfilled its promise. It might be a viable option in another five years. We do not think we can properly discuss the many complex aspects of electronic medical records within the framework of this current paper.

8. The limitations of the study are not addressed in the discussion. I would suggest considering the following as potential limitations.
   a. Using guidelines as opposed to quality indicators, discuss why this choice was made and what limitations this poses to the study.
   b. Only having the four authors that wrote the paper place the material in categories without outside validation. Maybe this is just a first step? Or possibly provide more information in an appendix so that the reader can more clearly assess the face validity of the classification.

The limitations of using clinical practice guidelines are outlined in the Discussion (p12, paragraph 3). We have outlined they type of information in each of the four categories in Table 2, so that readers can assess the face validity of the categories.