Author's response to reviews

Title: MDRD is not enough for detection and awareness of chronic kidney disease in an Italian regional hospital

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Author's response to reviews: see over
Response to reviewers

Article: “MDRD is not enough for detection of chronic kidney disease in an Italian regional hospital”

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Response to reviewer #1

Thank you very much for your comments and suggestions.

You wrote: The term “awareness” should be deleted from the title of the paper as that generally refers to the patient’s knowledge of kidney disease. Detection alone is more appropriate to this study.

Response: We agree. We deleted the term from the title.

You wrote: “DOQI class” is an old nomenclature, which is frequently used in the manuscript. “KDOQI stage” should be substituted throughout the paper.

Response: We agree. We have substituted “DOQI class” with “KDOQI stage” throughout the paper.

You wrote: The text describes the serum creatinine as calibrated with Siemens on page 5, line 5. Yet the equation with the 186.3 constant used to calculate estimated GFR also on page 5 (line 20) is not the IDMS calibrated equation, which uses a 175 constant instead. The IDMS calibrated equation is described in reference 10. Is this assay IDMS calibrated? If not the authors must remove the comment about calibration with Siemens to avoid confusion. If the assay is IDMS calibrated the authors need to recalculate the data using the correct equation from reference 10.

Response: We utterly agree and thank you for your observations. Our assay was IDMS calibrated, but we wrongly used the equation with the 186.3 constant for our calculations. Consequently, we recalculated the data using the correct equation with the 175 constant and modified the figures.
throughout the paper accordingly. The new calculations further strengthen our previous conclusions.

You wrote: The authors must remove the data about CKD stages 1 and 2 from Tables 2 and 3 or provide detailed discussion of the limitations. This not only does not add information, it is inaccurate. Patients with CKD were defined only by eGFR in the study. The authors do not have access to other data regarding proteinuria, kidney biopsy or imaging studies that are required to confirm the diagnosis of CKD for individuals with eGFR greater than 60. This is in contrast to CKD stages 3 to 5 that can be diagnosed by eGFR less than 60 alone.

Response: We agree completely. We removed the data about CKD stages 1 and 2 from tables 2 and 3.

You wrote: The methods should be more complete. For example, acute kidney injury and administration of radiocontrast are described as an exclusions in the discussion, but there is no information in the methods regarding how this was accomplished. What CKD codes were used? 585 and 586 alone or 585.1, 585.2, 585.3, etc.? When were the codes assessed introduced into the Italian coding system?

Response: We agree. On page 6, first paragraph, we added the sentence: ‘The diagnoses that included a code for renal replacement therapy (i.e. v56A, v45B), acute renal failure (i.e. 584.5, 584.8, 584.9) or contrast procedures (i.e. 88.4x, 88.5x) were excluded. The codes assessed are included in ICD9-CM-2002 (Italian Version), that was introduced into the Italian coding system on January 1, 2006’.

As a consequence, because our data were collected during 2007, we used CKD codes 585 and 586 alone. On January 1, 2009, the Italian coding system shifted to ICD9-CM-2007, that includes the sub-codes you mention (585.1, 585.2, etc).

You wrote: The comment on page 9, line 15-17 that in a large screening study using a laboratory database the lack of reproducibility of a single eGFR test was not a problem is misleading. The citation #30 is an outpatient population were issues of acute changes in eGFR are less likely and
thus cannot be generalized to an inpatient survey. The authors have excluded ICU, nephrology
units, dialysis and transplantation to address this in part.

Response: We agree. We have modified the sentence as follows: “However, in a large screening
study using laboratory databases, Garg et al. [30] showed that the size of this problem is not
relevant, and a subsequent cross-sectional evaluation of databases of Italian GPs [24] used a single
determination of eGFR, even if it should be noted that these studies were performed on outpatient
populations, where issues of acute changes in eGFR are less likely to happen”

You wrote: Expanding Table 4 to explore other interactions would strengthen the paper, including
diabetes, cardiovascular disease, age, and gender. How do these conditions change detection?

Response: We agree. We expanded Table 4 by including the variables age and gender. Diabetes
and cardiovascular disease are not included, because we are planning a further analysis of our data.
In any case, partial data about these conditions are reported on pages 7-8.

You wrote: The paper would benefit from general editing as demonstrated by the following
examples. On page 2, under conclusions "public health decisioners" substitute "public health
professionals". On page 8, paragraph 2, line 10, delete "the volume of" as this really is intended to
signify quantity, which is implied.

Response: We agree. We used an English copy editing service to address this issue.

You wrote: An additional limitation not addressed by the authors is that the use of ICD codes for
detection of CKD is probably increasing over time.

Response: We agree. We added the following statement in the discussion: “Hopefully, the use of
ICD codes for detection of CKD will increase over time, also thanks to the introduction of newer
and more accurate coding systems, such as ICD-9-CM 2007”.

Response to reviewer #2

Thank you very much for your comments and suggestions.
You wrote: In table III, it is better to describe % in parenthesis according to DOQI class

Response: We agree. It has been done.

You wrote: In table IV, number of hospitalization in medical part is wrong. Please confirm and correct it.

Response: We apologize for the typo. It has been corrected.

You wrote: Too many references. It can be concised.

Response: We agree. We deleted the unnecessary references.