Reviewer’s report

Title: The Current Status of Chronic Kidney Disease in India: First Report of the Indian CKD Registry

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Reviewer: Alan Cass

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Thank you for the opportunity to read this manuscript providing insight into the emerging picture of the burden of CKD in India. I have a number of queries and suggestions regarding the paper, most of which relate to the need to explain the health system and data availability in India to an international audience, as well as to provided some more detailed discussion regarding the processes used in data collection through the Registry.

If it is possible to address these issues, and I understand data limitations might preclude some of these issues being comprehensively addressed, I would strongly support this manuscript being published in BMC Nephrology. I believe an international audience will be interested in presentation of information regarding the burden of kidney disease in India.

1. Perhaps the title of the paper might reflect the fact that we are at the beginning of developing a comprehensive understanding regarding CKD in India: "What do we know about CKD in India: First report of the Indian CKD Registry"?

2. Introduction

I would like the introduction to set the scene better regarding what is known about the contribution of chronic disease towards morbidity and mortality in India, and what is known specifically about the population burden of CKD. In addition, some discussion regarding the organisation of health care, the role and extent of primary and community-based care and hospital-based care, would be very useful.

Has there been a National Health Survey in India? Are there national reports describing disease burden in terms of mortality and morbidity including hospitalisation? Are death certificates routinely issued and used for reporting in India? Are there examples from research that describe using verbal autopsies to begin to explore the population burden of chronic disease? Have any community- or population-based surveys of the prevalence of CKD or its risk factors been undertaken? What are the patterns of health insurance coverage? What access do Indian people in cities, villages and rural areas have to primary care and hospital-based services? How are people identified to have CKD and how will people be referred to a hospital for CKD management?

3. Materials and Methods
The CKD workgroup have established an agreed set of definitions for use in the Registry, especially relating to disease causation. On what basis are diseases categorised? Could the authors provide the diagnostic categories in an appendix?

Data was verified by a statistician who picked out obvious errors and removed duplicates. How many duplicates were removed and what does this say about patient utilisation of renal services? Were any other processes of data verification undertaken – some form of random audit of patient records for example? How was disease causation attributed? Approximately what proportion had diagnoses established following renal biopsies?

Active efforts were made to ensure uniform representation of geographical areas. 188 contributing centres represents what approximate percentage of all Indian nephrology units? Does the level of participation in the Registry vary by region? Why has the number of new cases reported by year decreased from 2006 to 2010? (See Supplementary Table 1.) Is there any evidence regarding different levels of completeness of coverage of the population burden of disease for CKD and ESKD?

4. Results
The results section and key tables provide numbers of cases by region and report basic demographic characteristics. How do the populations across these regions vary by age, ethnicity, level of development, poverty etc and how might this be expected to affect disease rates?

A range of sociodemographic data are presented. What is the meaning of the reported categories of monthly family income and how do these relate to median family income?

It was reported that 77% of all Registry patients were treated without dialysis at the time of enrolment. However, it is the proportion of CKD Stage V patients who are treated, which is reported later, that is more relevant.

There are multiple Tables and Supplementary Tables describing the number of cases of CKD by region and other characteristics. Several need to be removed and key information provided in a smaller number of Tables.

5. Discussion
The discussion seems somewhat unclear in its exploration of the information provided by registries as it pertains to ESKD and CKD. In a range of countries, ESKD registries provide comprehensive population-based estimates of the burden of treated ESKD. Nevertheless, information regarding stage V CKD which is untreated and, apart from countries with National Health Surveys that include physical measures and blood/urine testing, information regarding the burden and progression of CKD remains incomplete on a global scale.

The manuscript begins to discuss the lack of established programs to manage CKD or even collect data. How and why do people present to hospitals for
management of their CKD? What is the nature and limitations of primary care-based management of chronic diseases, including risk factors for CKD such as diabetes and hypertension? Can we utilise some understanding of the prevalence of these risk factors to infer population risk for CKD? Noting the data has been provided by hospital-based nephrologists, how certain can the authors be regarding their discussion of the burden of different causes of CKD?

**Level of interest:** An article of importance in its field

**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