# Raised questions about the proposed adjustment in CKD classification in the elderly

Questões ponderadas sobre a alteração proposta na classificação de Doença Renal Crônica em idosos

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Submitted on: 4/4/2017. Approved on: 5/19/2017.

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DOI: 10.5935/0101-2800.20170060

#### **A**BSTRACT

In a recent review article, authors suggest lowering the diagnostic threshold for chronic kidney disease (CKD) in the elderly population. Here, it is discussed the possible implications of that proposed change.

**Keywords:** geriatrics; kidney diseases; glomerular filtration rate; nephrology

#### **R**ESUMO

Em recente publicação, foi sugerida a redução do limiar diagnóstico para Doença Renal Crônica (DRC) na população idosa. Na presente carta, discute-se as possíveis implicações da mudança proposta

Palavras-chave: geriatria; nefropatias; taxa de filtração glomerular; nefrologia

## Respected Editor,

I would like to congratulate the authors Richard Glassock, Aleksandar Denic and Andrew D. Rule. Their review article entitled "When kidneys get old: an essay on nephro-geriatrics", which was published in the *Brazilian Journal of Nephrology* (2017, 39:59–64),<sup>1</sup> raises an important discussion and, therefore, has great value. However, I would like to make some observations.

In the article, the authors suggest lowering the diagnostic threshold for chronic kidney disease (CKD) in the elderly population. For this, they cite studies that do not evidence an increased risk of mortality in the elderly with Glomerular Filtration Rate (GFR) between 45 and 60 ml/min/1.73m<sup>2</sup>.

It should be emphasized, however, that there are studies which have indicated an increase in mortality, even in the elderly with mild renal dysfunction. For example, in 2016, a large Japanese cohort showed that older women with a GFR of 45-49 ml/min/1.73 m² had a statistically significant increase in cardiovascular mortality and also in all-cause mortality.²

In another study from the United Kingdom, a significant risk increase for mortality in elderly patients with GFR was also shown between 45 and 59 mL/min/1.73m<sup>2</sup>. There was a significant increase in mortality due to cardiovascular disease in both sexes in the first 2 years, and in men it was also shown to have increased after 2 years, including all-cause mortality.<sup>3</sup>

Although there is some controversy in the literature, it is well established that there is a greater magnitude of increase of mortality risk in the elderly population with GFR < 45 ml/min/1.72m², as highlighted by the authors. However, I am unconvinced that a not worsening mortality is a reasonable justification for not classifying this discrete decrease in renal function as CKD. In the future, with the improvement in the general population's life expectancy, there is likely to be an increase in mortality in elderly individuals with even mild renal dysfunction.

In addition, although aging is a nearly universal phenomenon, it is known that a decline in GFR is not. In up to one-third of the normotensive elderly, there is no decrease in renal function with aging.<sup>4</sup>

Finally, there are theoretical advantages with the early diagnosis of CKD in any age group. Some of them were listed by the authors, such as giving more attention to avoiding nephrotoxic drugs. Furthermore, the assumption of more sensitive diagnostic criteria for CKD screening in elderly patients does not seem to be harmful because its management is generally not invasive, with follow-up, orientation, and risk factors' control such as hypertension, obesity, diabetes, and smoking. The benefits of early diagnosis may, therefore, overcome the possible ill-effects of over-diagnosis in the elderly population.

The authors were successfully able to raise this discussion, calling for nephrologists' attention to this age group. As a general specialty recommendation, however, I consider it too early yet to assume less strict diagnostic criteria for CKD in the elderly

population. Individualized patient management and common sense should prevail until more robust evidence is available.

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