

Chronic kidney disease in Peru: a challenge for a country with an emerging economy

Authors

Percy Herrera-Añazco^{1,2}
 Vicente A. Benites-Zapata³
 Ivan León-Yurivilca⁴
 Rosember Huaracaya-Cotaquispe³
 Manuela Silveira-Chau⁵

¹ Universidad Nacional de Piura.
² Hospital Nacional 2 de Mayo.
³ Unidad Funcional de Cobertura y Siniestros, Fondo Intangible Solidario en Salud.
⁴ Unidad Funcional de Financiamiento, Fondo Intangible Solidario en Salud.
⁵ Universidad Federico Villarreal.

ABSTRACT

Coverage of renal replacement therapies (RRT) in Peruvian Ministry of Health is poor. There is an unequal distribution of TRR in the country, and is possible that up to 50% of the population does not have access to any kind of TRR. A multi-institutional approach to address this problem is necessary as it has been in consistent with the economic improvement of the country.

Keywords: chronic, renal dialysis; health services accessibility; kidney failure.

Dear Editor,

A recent systematic review on the access to renal replacement therapy (RRT) at a global level showed that the incidence of individuals in need of RRT in Latin America - from conservative to more aggressive estimates - ranged from 663-1317 pmp.¹ For a nation of 30 million people such as Peru, this means the number of individuals in need of RRT may range from 19,890 to 39,510.

The prevalence of chronic kidney disease (CKD) in the world ranges from 1.7% to 8.1%.² In Peru, the prevalence of CKD in some of the country's regions may reach 16.8%,³ a level greater than the mean value found in this systematic review, indicating that the need for RRT in Peru might be greater than that of other countries in the region.

Peru has a fragmented health care system, in which two institutions provide RRT: the Ministry of Health (MINSA), through the Solidarity Health Fund Executive Unit (*Fondo Intangible de Solidaridad en Salud* - FISSAL), and Social Security (Essalud). In 2010, Essalud provided RRT to 9,814 patients,⁴ while the FISSAL offered hemodialysis (HD) to 1,983 individuals in 2014.

According to the National Register of Health Care Centers, some Peruvian states do not have hospitals equipped with HD centers or private HD centers accredited by the FISSAL to offer care to MINSA patients. The underreported number of individuals offered or in need of RRT hampers the planning efforts devised to obtain the resources required for patient care (Table 1).

A large number of Peruvian citizens in need of RRT remain untreated. This is a growing challenge for health care organizations from all over the world, which in the best cases are able to provide care to 50% of the patients, thus increasing death rates and the social costs of individuals not offered RRT.¹ The death rate of incident patients offered HD through the MINSA may be as high as 50% within seven months. And nearly half of the patients quit treatment mostly due to lack of a bed to undergo HD in a hospital.⁵

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Correspondence to:

Percy Herrera-Añazco.
 Hospital Nacional 2 de Mayo.
 Olavegoya, n° 1879, Dpto. 701,
 Jesus Maria, Lima, Peru.
 E-mail: silamud@gmail.com

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TABLE 1 HEMODIALYSIS COVERAGE IN PERU BY THE FONDO INTANGIBLE DE SOLIDARIDAD EN SALUD (FISSAL), 2014

State	Patients on HD	No. of MINSAs hospitals offering HD	No. of private centers with the FISSAL
Amazonas	NA	0	0
Ancash	70	0	2
Apurímac	SR	0	0
Ayacucho	NA	0	0
Arequipa	120	1	0
Cajamarca	NA	0	0
Cuzco	80	1	0
Huancavelica	NA	0	0
Huánuco	52	1	0
Ica	81	1	0
Junín	NA	0	0
La Libertad	209	0	2
Lambayeque	238	1	1
Lima	749	4	6
Loreto	58	1	0
Madre de Dios	10	0	0
Moquegua	NA	0	0
Pasco	NA	0	0
Piura	32	0	0
Callao	208	0	0
Puno	NA	0	0
San Martín	6	0	1
Tacna	18	0	1
Tumbes	15	0	1
Ucayali	37	0	2
Total	1983	10	16

HD: Hemodialysis NA: data not available MINSAs: Ministry of Health.
Source: Fondo Intangible de Solidaridad en Salud (FISSAL).

The MINSAs face two main issues: lack of national coverage for RRT and high death rates of incident patients on HD. Both problems require a structured multidisciplinary approach focused on early disease detection, proper treatment for patients with early-stage CKD, and introduction of HD - whose lack has been associated with increases in the death rate of patients on HD with the MINSAs.⁵ Institutions such as the Peruvian Society of Nephrology and universities also need to play a role in the development of the solutions to these issues by encouraging research on the points in need of improvement and by training the human resources assigned the task of providing care to patients with CKD.

REFERENCES

1. Liyanage T, Ninomiya T, Jha V, Neal B, Patrice HM, Okpechi I, et al. Worldwide access to treatment for end-stage kidney disease: a systematic review. *Lancet* 2015;385:1975-82. PMID: 25777665 DOI: [http://dx.doi.org/10.1016/S0140-6736\(14\)61601-9](http://dx.doi.org/10.1016/S0140-6736(14)61601-9)
2. McCullough K, Sharma P, Ali T, Khan I, Smith WC, MacLeod A, et al. Measuring the population burden of chronic kidney disease: a systematic literature review of the estimated prevalence of impaired kidney function. *Nephrol Dial Transplant* 2012;27:1812-21. DOI: <http://dx.doi.org/10.1093/ndt/gfr547>
3. Francis ER, Kuo CC, Bernabe-Ortiz A, Nessel L, Gilman RH, Checkley W, et al.; CRONICAS Cohort Study Group. Burden of chronic kidney disease in Peru: a population-based study. *BMC Nephrol* 2015;16:114. DOI: <http://dx.doi.org/10.1186/s12882-015-0104-7>
4. Pecoits-Filho R, Rosa-Diez G, Gonzalez-Bedat M, Marinovich S, Fernandez S, Lugon J, et al. Renal replacement therapy in CKD: an update from the Latin American Registry of Dialysis and Transplantation. *J Bras Nefrol* 2015;37:9-13. DOI: <http://dx.doi.org/10.5935/0101-2800.20150002>
5. Herrera-Añazco P, Benitez-Zapata V, V. Hernandez A, Mezones-Holguin E, Silveira-Chau M. Mortality in patients with chronic kidney disease undergoing hemo-dialysis in a public hospital of Peru. *J Bras Nefrol* 2015;37:192-7.