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## Letter to the Editor

# Evolution of renal replacement therapy in Mexico in the last 10 years<sup>☆</sup>

## Evolución del tratamiento sustitutivo de la función renal en México en los últimos 10 años

### ARTICLE INFO

#### Article history:

Dear Editor,

In Mexico, 11% of the general population suffers from some degree of chronic kidney disease. The main causes are diabetes mellitus and arterial hypertension. There is no kidney health programme and 6% of patients are admitted for dialysis each year.<sup>1</sup> Over the last 10 years, dialysis treatments have increased at the expense of haemodialysis, which goes against current evidence.<sup>2</sup> The Instituto Mexicano del Seguro Social [Mexican Institute of Social Security] (IMSS) covers 65 million users in its different administrative regimes that offer its social security, and includes 50% of the patients that are on dialysis.<sup>3</sup>

A 10-year retrospective study (June 2008–June 2018) was conducted based on the institutional registry of adult and paediatric patients in chronic dialysis. It did not include continuous renal replacement therapy. It included 73,730 patients,

of which 70,158 (95%) were being treated in secondary health-care. A 57.5% were male, the average age was 63 years (range:

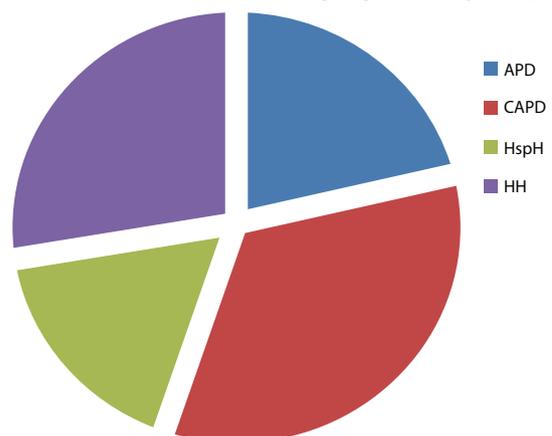
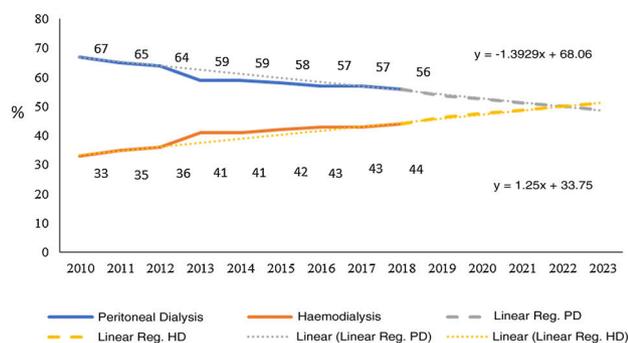


Fig. 1 – Distribution of treatment by type of dialysis.

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**Fig. 2 – Dialysis treatment trends and estimation for the next 5 years.**

1–90), with the highest prevalence in the 60–69 years age group (24.5%); and 27,399 (37%) were retired. The distribution of patients by dialysis treatment revealed that 40,968 (56%) were undergoing peritoneal dialysis (PD) and 32,762 (44%) were on haemodialysis (Fig. 1). The incidence of PD decreased by 10% in the study period, 1% yearly in a sustained manner. The linear regression analysis estimated that there will be more than 110,000 prevalent patients by the year 2027, and by the year 2022 the same number of patients will be receiving PD as haemodialysis (Fig. 2). This will result in greater financial investment in a programme that already jeopardises the economic stability of the Institute. The main causes of kidney failure were diabetes (53.3%) and high blood pressure (35.2%). The prevalence was estimated to be 1134 beneficiaries/million and an incidence of 474 beneficiaries/million. In total, 18,330 patients were referred for a kidney transplant study (average of 3055 per year), 87% with a living donor, 9% for predialysis, 54% male and 46% female, with an average age of 39.2 years (range: 5–65). The most common complications were peritonitis (29.8%), mechanical complication of the peritoneal catheter (8%) and vascular access dysfunction (5.9%). The final programme drop-outs (1181 average/month) were attributed to death from myocardial infarction (24.6%), septic shock (16.5%), multiple organ failure (8%) and kidney transplantation (3.4%).

The findings indicates the need for implementation of effective strategies in primary healthcare to reduce the incidence of chronic kidney disease, improve healthcare procedures for chronic kidney disease in all its stages, perform more transplants, promote and improve professional skills and have an influence on factors related to lack of supplies and lack of adherence to international management recommendations.<sup>4</sup> Currently, the direct cost of dialysis treatment in the IMSS is about 5.5 billion pesos and it is estimated that at least the same amount is invested in indirect expenses. This undermines the financial stability of the institute, since a minimum percentage of CKD patients on dialysis (0.1%) exceeds the cost of other health programmes, such as for breast cancer, cervical cancer, prostate cancer and the care of patients with HIV-AIDS.<sup>5</sup> This public health problem is difficult to control as it specifically affects education and

behavioural changes that hinder human development and limit the expression of health as a whole, not just kidney health. The Institute and the Mexican National Health System have been slow to introduce a kidney health programme with specific strategies to contain the large-scale disease that is chronic kidney disease.<sup>6</sup>

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