Excessive availability of HD stations is one of the obstacles to developing home PD and HD.[5] In Madrid, for example, excessive HD availability has resulted in a reduced number of patients on home PD therapy. Planning that focuses on the patient, and not on the treatment, is essential. This is how it should be, but the reality is different. An analysis of the true capacity of available HD stations, the number of shifts that could be scheduled and the number of patients to receive care if no HD station went unused should be undertaken before opening any new HD centres. In fact, no new HD centres are currently needed in most Spanish provinces. All medical districts, including Pontevedra, should take this under advisement.

We believe that dialysis therapy should be provided according to planned objectives that are reasonable in the number of transplant recipients, and patients on HD and DP, promoting education and equal access to all treatments in all public hospitals.

**Conflicts of interest**

The authors affirm that they have no conflicts of interest related to the content of this article..


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**Javier Arrieta[1], Ana Rodríguez-Carmona[2], César Remón[3], Miguel Pérez-Fontán[2], Francisco Ortega[4], José A. Sánchez-Tomero[5], Rafael Selgas[6]**

[1] Jefe del Servicio de Nefrología. Hospital de Basurto. Bilbao, Vizcaya (Spain).
[2] Servicio de Nefrología. Complejo Hospitalario Universitario A Coruña (Spain).
[3] Servicio de Nefrología. Hospital de Puerto Real. Puerto Real, Cádiz (Spain).
[4] Servicio de Nefrología. Hospital Universitario Central. Oviedo (Spain).
[5] Servicio de Nefrología. Hospital Universitario La Princesa. Madrid (Spain).
[6] Servicio de Nefrología. Hospital Universitario La Paz. Madrid (Spain).

**Correspondence:** Javier Arrieta
Jefe del Servicio de Nefrología.
Hospital de Basurto. Bilbao, Vizcaya (Spain).
jarrietal@senefro.org


## The importance of addends in cost studies


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**To the Editor,**

It was with great interest that we read the article by Lamas et al[1] published in your journal which discussed the costs of haemodialysis (HD) and peritoneal dialysis (PD) outsourcing agreements. The cost analysis is initially simple as it is based on pure mathematics, but biases may be introduced when selecting addends.

According to the published article, the cost of PD is nearly higher than that of HD. However, this is based on several assertions that we will list below.

The first is the cost of medical transport. This item entails very significant costs. The article implies that PD patients may not need transport, which would reduce the overall cost differential. However, patients on PD visit the clinic, as do all other outpatients. If they have mobility problems, they are provided transport, as is the case for other outpatients. In the case of HD, however, transport is provided to all patients. I therefore believe that transport should be included in Table 1. Furthermore, if we analyse Figure 3, we find that costs (even for outsourced HD) are higher for HD than for DP if we consider the average cost for all the regions.

Table 2 outlines the personnel costs involved in PD based on the salaries of public hospital employees. However, the HD section only includes the amount paid to outsourced HD centres. The article should state the percentage of patients undergoing HD with an outsourced service and those on dialysis in public hospitals, and this must be adjusted for the hospital personnel costs.

In regard to vascular/peritoneal access, the PD section lists the cost per catheter and catheter extension. However, it does not mention the percentage of HD patients who have a native fistula, how many have PTFEs and how many have temporary or permanent catheters or the cost of these consumables (in addition to surgery and hospitalisation costs, etc.) and urokinase.

The PD section lists the percentage of patients treated with different techniques and volumes. However, it does not mention the percentage of patients treated with high-flux membranes or convective techniques, or how many undergo sessions more frequently than is normal (which would significantly increase the costs).

The authors state that HD creates direct jobs. If 1 person is hired to care for each patient, it is true that more jobs are being created. However, this is not efficiency but wasting public resources, which are growing scarce.

We cannot agree with the authors' conclusions regarding the cost of

different techniques, except for the statement that "discrepancies between the different studies published in Spain regarding the comparative costs of PD and HD need more rigorous studies that can shed more light on this topic". We hope that one day the Government will undertake a rigorous and unbiased cost study in order to determine the true cost of dialysis in Spain.

**Conflicts of interest**

The authors affirm that they have no conflicts of interest related to the content of this article.

1. Lamas Barreiro JM, Alonso Suárez M, Saavedra Alonso JA, Gándara Martínez A. Costes y valor añadido de los conciertos de hemodiálisis y diálisis peritoneal. Nefrologia 2011;31(6):656-63.

**José I. Minguela-Pesquera,**
**Isabel Jimeno-Martín,**
**Ramón Ruiz de Gauna-López de Heredia**
Servicio de Nefrología. Hospital Txagorritxu. Vitoria-Gasteiz, Álava (Spain).
**Correspondence:** José I. Minguela Pesquera
Servicio de Nefrología.
Hospital Txagorritxu. José Atxotegi s/n. 01009
Vitoria-Gasteiz, Álava (Spain)
joseignacio.minguelapesquera@osakidetza.net

## Costs of haemodialysis and peritoneal dialysis outsourcing agreements

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**To the Editor,**

In response to the letters by Drs Arrieta et al and Minguela et al regarding our article,[1] we wish to thank them for their interest, criticism and input, and add the following clarifications.

Let us assume that haemodialysis (HD) and peritoneal dialysis (PD) are similarly effective, based on data found in the literature and corroborated by a review recently published in our journal.[2] The fact that some studies of patients on PD show higher survival rates, lower hospitalisation rates and a higher apparent probability of undergoing transplantation may be due, as other authors have indicated, to biases related to the characteristics and co-morbidities of patients included in each of the treatment regimens.

Our study clearly shows that the cost of PD is highly dependent on the prescription, and costs are no always lower than in HD. One treatment or the other are considered more efficient depending on the costs of other treatment components (transport for HD, accesses for dialysis and their complications, drugs, emergency care, hospitalisations) which vary between different hospitals. This is why it is important to consider prescriptions in PD and rigorously estimate costs in future studies, which should be publicly financed and include participation by a representative number of medical centres in order to eliminate biases inherent to the "centre effect".

We agree that all costs to nephrology departments incurred by patients being treated in an outsourced centre must be calculated, but we must distinguish between care for issues that are common to both techniques and complications that are directly related to one treatment regimen or the other.

We do not have the data regarding the percentage of patients undergoing more than 3 weekly HD sessions in an outsourced centre. The cited S.E.N. data are based on a record of daily HD sessions,[3] which only included 70% of prevalent patients on HD.[4] Of them, 3.5% underwent 3.5 or 4 weekly sessions and only 1.5% underwent 5 or more sessions. If we extrapolate these data to our study, the results do not change significantly. High-flux membranes and special techniques do not affect HD outsourcing costs in our region because mark-ups associated with them do not enter into the equation; these materials are used according to the provider's best judgement and at the provider's expense.

We do agree that we should have included value-added tax (VAT) when we calculated the difference between the outsourced service costs and the consumable materials. But if we consider this as a reimbursement passed on to the Treasury, we should also count VAT paid for outsourced HD services for the purchase of monitors, materials and other services, and the personal income tax on participants in both outsourced services. With regard to personnel hired by companies providing PD, it is similar to staff providing dialysis material in outsourced HD centres and it is already included in the cost of the service.

In conclusion, we also believe that PD is underused, but we would not say that economic concerns are the best reason for promoting this treatment regimen due to discrepancies listed in our article. Rather, we feel that equal access to all types of dialysis in all nephrology departments should be guaranteed, and that the process of selecting the technique should revolve around the patient's situation, the patient being free to choose an option after being properly informed.

We trust that further multi-centre studies that receive public funding and evaluate all of the factors in play will aid in clarifying the questions that have been raised.

**Conflicts of interest**

The authors declare potential conflicts of interest:

- **Grants**: the authors receive funds for different research projects from *Instituto Reina Sofía de Investigación* research centre, which belongs to the *Fundación Renal Íñigo Álvarez de Toledo* (Íñigo Álvarez de Toledo Kidney Foundation).
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