letters to the editor

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## A) COMMENTS ON PUBLISHED ARTICLES

## Cost comparison between haemodialysis and peritoneal dialysis outsourcing agreements

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## To the Editor,

Several articles on the subject of treatment costs have been published in this journal,<sup>1-3</sup> which probably has to do with the economic crisis. In our article,<sup>2</sup> we mentioned omissions in cost calculations which, curiously enough, almost always favoured haemodialysis (HD). Some assume that the two treatments are similarly effective, and overlook the fact that peritoneal dialysis (PD) is better for preserving residual renal function, is the best option for transplant candidates and has a higher survival rate.<sup>4</sup>

The recent article by Lamas Barreiro et al,<sup>1</sup> based on data from Galicia, mentions — but does not include in the calculation — the cost of transport to dialysis centres (between 3323 and 6338 Euros) and the costs of making and repairing vascular accesses for HD. However, it does consider the cost of the necessary catheters and material for patients on PD. This is also the case for regular visits, hospital stays, emergency treatments, etc. which are more frequent for HD patients.

The article states that outsourced HD and home PD require the support of a hospital dialysis unit and nephrologists and nurses on call during 24 hour shifts, provided by Spain's national health system. However, it does not calculate personnel, hospital or spare involved equipment costs in providing outsourced HD. These costs must be included. Omitting them is an error, to say the least.

The article highlighted the tendency for automated peritoneal dialysis (APD) to increase in comparison to continuous ambulatory peritoneal dialysis. This must be a local phenomenon, since many other nephrologists believe the opposite tendency to be true. The authors did not mention that the figure which has in fact grown year after year, by more than 5%, is the number of HD patients undergoing more than 3 sessions weekly (S.E.N. register<sup>4</sup>). This may increase the costs of outsourced service by 33%-100%, depending on the weekly number of sessions.

We agree on the point that without knowing the costs of hospital stays, hospital medications, and inhospital HD, among others, we cannot provide the precise cost of any of the treatments.

The cost of erythropoietin (EPO) has gone down, due to both a decrease in price and the haemoglobin target value, but this applies equally to PD and to HD. Furthermore, costs of both hospital drugs (intravenous vitamin D and cinacalcet) and outpatient drugs<sup>3</sup> are increasing in HD and decreasing in PD.

Increased use of biocompatible membranes has reduced EPO consumption somewhat, but not enough to compensate for the high cost of the membranes (let alone the cost of on-line haemodiafiltration. In some Spanish regions, this amounts to 25 to 33 Euros/session, or 3900 to 5148 euros per patient per year).

The added value of outsourced services for the healthcare sector is interesting, but hard to measure. Providers of PD material also hire qualified personnel, have a technical support service and hire transport. However, the contribution of PD to transplant success in Spain and the economic savings that it generates also count as added value (in Galicia, 35% of transplant recipients were previously on PD treatment). Another matter of added value that is not included in the article is the way each treatment type affects the patients' work situation. According to data from a survey by Alcer, 48% of working age patients on APD continue to work, which is only true in 22% of HD patients.

Since we are discussing added value, we must not overlook valueadded tax (VAT). The HD prices cited in the article by Lamas<sup>1</sup> do not include it. In the case of PD treatment, once the invoice is submitted the Health to Administration, VAT is paid to the Treasury. This figure ranges between 8% and 18% of the invoice total, depending on the tax rate that applies to each of the different items on the invoice. This means that the PD costs given here are underreported by a minimum of 8% VAT, since the rate applied to outsourced HD is net of VAT as per Article 20.1.2 of Spanish Law 37/1992 on Value Added Tax.

With regard to the profit margin analysis, merely knowing that a dialyser and a few HD lines can be purchased for approximately 15 Euros, and that the cost of outsourced HD ranges from 127 to 185 Euros per session depending on the region, does not provide enough information to conclude that 10 times the cost of the consumable material is too much to pay. Outsourced HD has generated many benefits, and at present, sale prices of HD centres are still very high. Pontevedra province is planning to open more outsourced dialysis centres. This cannot be for lack of profit margin among outsourced HD centres.

# letters to the editor

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 advice.

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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# 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<sup>1</sup> 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