HDD cannot be advocated for all patients

Sir, Saner and colleagues have made a good case for home haemodialysis (HHD) as an effective renal replacement therapy in Switzerland [1]. Yet, in the last paragraph of their case-cohort study of 58 patients, they admit that patient selection may have influenced their results. We agree. Our analysis of a much larger cohort, that of the United States Renal Data System, used the standardized mortality ratio (SMR) to compare HHD patients with in-centre haemodialysis patients. The SMR takes age, race, gender and diabetes into account. Contrary to older reports, we found that HHD had a higher SMR compared with in-centre dialysis (see Table 1) [2].

In addition, the cost of HHD was not cheap, while somewhat less than in-centre dialysis, which was $54,917 per year over the same time of study.

Our data run counter to accepted wisdom about HHD. Increasing patient co-morbidity, decreasing family support and waning of doctor and nurse expertise may explain the inferior HHD outcomes in the USA. It is also likely that in-centre dialysis has improved its dialysis delivery to a greater extent than has HHD in recent years.

HHD cannot be advocated for all patients. Even the still-infrequent newer daily HHD therapies will require scrutiny and proper outcome analysis.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of HHD</th>
<th>% of all dialysis</th>
<th>Cost/year (US$) for HHD</th>
<th>SMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1676</td>
<td>0.7</td>
<td>44 160</td>
<td>1.19</td>
</tr>
<tr>
<td>1999</td>
<td>1327</td>
<td>0.5</td>
<td>43 304</td>
<td>1.09</td>
</tr>
<tr>
<td>2000</td>
<td>1444</td>
<td>0.5</td>
<td>42 326</td>
<td>1.38</td>
</tr>
<tr>
<td>2001</td>
<td>1338</td>
<td>0.5</td>
<td>47 554</td>
<td>1.37</td>
</tr>
</tbody>
</table>

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Reply

Sir, Cohen and Charba challenge the results of our study by presenting an alternative cohort from the United States Renal Data System (USRDS) that shows a higher standardized mortality rate (SMR) for home haemodialysis patients compared with in-centre patients.

We have discussed the possibility of a selection bias in our small cohort. Patient selection might also have influenced the findings of the USRDS registry, despite the much larger number of patients accumulated. The mortality rates of the USRDS patients were standardized according to age, race, gender and diabetes. No data are given about social status, regional distribution and access to medical facilities. Furthermore, it is unknown if dialysis treatment parameters, the amount of dialysis delivered and the percentage of filter reuse were the same at home as in the centre.

Switzerland is small and has a high density of dialysis units so that home haemodialysis is rarely selected on the basis of poor access to medical facilities. The advantage of our small single centre cohort is that home haemodialysis patients had comparable dialysis prescriptions and used the same materials as those treated in-centre. Furthermore, they were followed by the same medical staff as the in-centre patients.

We have reasons enough to continue convincing and training home haemodialysis patients. However, we have to ensure that the patients treated at home are not deprived of advances in renal replacement therapy.

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