To Replacement Facility

Two analyses were conducted:

• Rural facilities may be at greater risk of closure, as Medicare

• ≥ 10% for 20% of facilities.

OBJECTIVE

The primary aim of this retrospective modeling study was to estimate travel distances to replacement facilities, which may affect disease traveled and travel time spent by patients for dialysis care.

INTRODUCTION

Rural patients may travel longer distances to replacement facilities than urban patients. Several studies have noted the high financial burden these patients bear, but little research has focused on the more rural ESRD Networks regions (eg, Networks 8, 12, 13, 15).

RESULTS

Table 1. Incremental Travel Distances

<table>
<thead>
<tr>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
<th>Replacement Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2</td>
<td>0.7</td>
<td>3.0</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Figure 1. US Hemodialysis Facilities by Urbanicity and Proximity to Other Facilities

Figure 2. Geographic Availability of Hemodialysis Facilities and Locations of Hemodialysis Patients

Figure 3. Distribution of Patient Travel Distance to Original Versus Replacement Facility

Figure 4. Distribution of Patient Travel Time by the Rural/Urban Status of the Patient Residence

DISCUSSION

Increased travel could have significant implications for patient health outcomes and quality of life. Previous studies have reported that patients traveling ≥ 16 minutes (one way) for dialysis have lower estimated survival rates, lower hemoglobin levels, and increased direct and indirect medical costs. These costs include higher transportation cost, lost productivity, and non-compliance.

Estimates of incremental travel did not factor in new facility construction. Additional facilities could mitigate the effects of closures on travel for some patients. Estimates may be conservative. The number of rural facilities affected could be higher; new rural facilities appear to be at greater risk.

CONCLUSIONS

Increased travel could have significant implications for patient health outcomes and quality of life. Evaluating the direct and indirect medical costs associated with increased travel time is critical for understanding the potential impact of facility closures.

Regional Differentials with Rural Implications

Table 2. Patients Affected if 160 Facilities Close/Consolidate, 2012–2014

<table>
<thead>
<tr>
<th>Facility Characteristics</th>
<th>Total</th>
<th>160 Facilities Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Dialyzed Patients</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Discharged Patients</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>Accessory Earnings</td>
<td>1,232</td>
<td>1,232</td>
</tr>
<tr>
<td>Total</td>
<td>1,332</td>
<td>1,332</td>
</tr>
</tbody>
</table>

REFERENCES


The table presents estimates on the basis of national averages. Some variation may occur by solute.