INTRODUCTION

• There is limited evidence on the safety of outpatient parenteral antimicrobial therapy (OPAT) in older patients.1
• Healthcare utilization may be an indicator for adverse events or challenges associated with therapy.2,3
• Older adults discharged home may require increased supervision.1,3
• Certain antimicrobials may be associated with increased adverse events in older versus younger adults.4
• Study Objective: To evaluate healthcare utilization during OPAT in older versus younger adults.

METHODS

Study Population

• Patients initiated on OPAT during hospitalization at Yale New Haven Hospital between 10/1/2016 and 9/30/2017

Data Collection

• Age, gender, length of stay, discharge disposition, and resource utilization
• Stratified by older adults ≥ 65 years of age versus younger adults ≥ 18 years

Study Outcome

• Healthcare utilization, defined as hospitalizations, emergency room visits, office visits, and phone calls during the 6 month period following hospital discharge

Statistical Methods

• X² to compare differences between categorical variables (i.e., discharge disposition)
• T-test to compare differences between continuous variables

RESULTS

Table 1. Descriptive characteristics on OPAT initiation

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Older Adults N=197</th>
<th>Younger Adults N=253</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years, median (range)</td>
<td>75 (65-105)</td>
<td>54 (18-64)</td>
<td>--</td>
</tr>
<tr>
<td>Male Gender, N (%)</td>
<td>125 (63%)</td>
<td>150 (59%)</td>
<td>0.37</td>
</tr>
<tr>
<td>Length of Stay in days, mean (SD)</td>
<td>12.1 (9.5)</td>
<td>12.5 (8.3)</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Discharge Disposition

• Home with self-care, N (%) 8 (4%) vs 26 (10%)  <.0001
• Home with services, N (%) 41 (21%) vs 107 (42%) 0.42
• Nursing Home, N (%) 139 (71%) vs 105 (42%) 0.15

• Median OPAT duration
  ❖ Older adults: 31 days (1-155 days)
  ❖ Younger adults: 34 days (1-183 days)

Table 2. Healthcare utilization in 6 months after OPAT initiation

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Nursing Home</th>
<th>Home</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Older Adults N=139</td>
<td>Younger Adults N=105</td>
</tr>
<tr>
<td>Hospitalizations, mean (SD)</td>
<td>0.5 (1.3)</td>
<td>0.3 (1.4)</td>
</tr>
<tr>
<td>Emergency Room visits, mean (SD)</td>
<td>3.1 (2.9)</td>
<td>4.0 (5.7)</td>
</tr>
<tr>
<td>Office Visits, mean (SD)</td>
<td>1.5 (1.4)</td>
<td>1.8 (1.8)</td>
</tr>
<tr>
<td>Phone Calls, mean (SD)</td>
<td>3.0 (4.3)</td>
<td>3.2 (4.9)</td>
</tr>
</tbody>
</table>

CONCLUSIONS

• There is no difference in healthcare utilization within 6 months of discharge between older and younger adults discharged on OPAT.
• These data support the safety of OPAT, including home OPAT, in older adults in the 6 months post OPAT initiation.
• Specified antimicrobial classes do not differentially impact older versus younger adults.

LIMITATIONS

• Retrospective nature may have contributed to observation bias
• Incomplete outcome evaluation due to reliance on medical records.
• Healthcare utilization data may not reflect complications during OPAT.

REFERENCES