### Introduction

- 1.5 million Americans are diagnosed with cancer each year. 
- Patients are choosing oral anticancer medications (OAMs) as they are convenient. 
- Adherence to oral medications ranges from 46% to 100%. 
- It is estimated that 25% of patients at a local cancer center are nonadherent to OAMs, mostly due to forgetfulness. 
- Nonadherence can lead to treatment failure, increased morbidity, and increased mortality.

### Purpose and Aims

- **Purpose:** Develop a survey to measure OAM adherence before and after implementation of an educational program that includes a pillbox.
- **Aim 1:** Standardize the way OAM nonadherence is identified at each provider visit.
- **Aim 2:** Improve OAM adherence rates by adding a pillbox to an existing educational program.

### Design and Setting:

**Intervention and comparison group at a small rural outpatient cancer center**

**Sample:** Two independent sample groups

- **Group 1:** 45 existing patients on OAMs
- **Group 2:** 5 new patients taking OAMs

**Intervention:**
- Adapted an adherence survey from the site’s EHR
- Survey administered at all provider appointments
- Pillbox added to the existing educational program
- Patients educated on how to fill pillbox and utilized throughout intervention phase

**Analysis:** Percentage comparisons between groups

### Sample Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt;64 y</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
<td>62.2</td>
</tr>
<tr>
<td>Race: Black</td>
<td>16</td>
<td>17.8</td>
</tr>
<tr>
<td>Blood/Bone Marrow</td>
<td>15</td>
<td>33.3</td>
</tr>
<tr>
<td>Cancer Origin</td>
<td>30</td>
<td>66.7</td>
</tr>
<tr>
<td>No. of Medications in Regimen</td>
<td>40</td>
<td>88.9</td>
</tr>
<tr>
<td>No. of Pills in a Dose</td>
<td>26</td>
<td>57.8</td>
</tr>
<tr>
<td>Max No. of Doses Per Day</td>
<td>26</td>
<td>57.8</td>
</tr>
<tr>
<td>Daily Dosing or Cycle Breaks</td>
<td>25</td>
<td>55.6</td>
</tr>
<tr>
<td>Breaks in Cycle</td>
<td>20</td>
<td>44.4</td>
</tr>
</tbody>
</table>

### Results

**Aim 1: Standardize OAM Adherence Assessment**

- Pre-intervention completion rates were 0%.
- Post-intervention combined completion rate was 74%.

**Aim 2: Improve OAM adherence with addition of a pillbox to the educational program**

- Participants who were always adherent increased from 77.8% in Group 1 to 80% in Group 2.
- Participants who were never adherent decreased from 4.4% in Group 1 to 0% in Group 2.

### Conclusion

- Standardizing medication adherence assessment follows national guideline recommendations and allows for easier quality and safety monitoring. In addition, a multimodal educational approach that includes reminder packaging may improve OAM adherence, therefore improving treatment success.