OBJECTIVE: Cancer treatment is rapidly evolving with the emergence of highly effective oral targeted therapies, which has elevated the importance of adherence. This study examined the rates and effect of real-world non-adherence from a patient perspective, among those using treatments where such oral therapies are the standard of care.

METHODS: Data from the 2012 U.S. National Health and Wellness Survey (NHWS) were analyzed. Patients who reported a diagnosis of either leukemia, melanoma, or non-small cell lung cancer (NSCLC) and reported currently using a treatment for their condition were included in the analyses. Adherence was measured using the Medication Adherence Scale (MMS-6) modified for use in oncology. Sociodemographics, health history, and health outcomes were also assessed. Descriptive analyses of adherence were conducted along with an assessment of the relationships between adherence and health outcomes.

RESULTS: 103 respondents were included in the analyses (42, 43, and 20 with leukemia, melanoma, and NSCLC, respectively). Most respondents were male (68.9%) and the mean age was 51.1 years (SD=13.78). Across the three tumor types, 65.0% of respondents reported some form of non-adherent behavior (71.4%, 58.5%, and 65.0% for leukemia, melanoma, and NSCLC, respectively). Pooling tumor types, patients who were non-adherent significantly worse mental health status compared with patients who were adherent (mean=44.41 vs. 49.08, p=.07).

CONCLUSIONS: These results suggest a significant level of non-adherence among patients being treated for leukemia, melanoma, and NSCLC. Although statistical power was modest due to small sample size, preliminary results suggest a deleterious effect of non-adherence on health outcomes. As more oral targeted therapies emerge, an emphasis should be placed on improving adherence rates to maximize treatment benefit and reduce societal costs.

ABSTRACT

ADHERENCE AND ITS ASSOCIATION WITH HEALTH OUTCOMES AMONG PATIENTS CURRENTLY TREATED FOR LEUKEMIA, MELANOMA, OR NON-SMALL CELL LUNG CANCER (NSCLC)

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INTRODUCTION

• Cancer treatment is rapidly evolving, with the emergence of highly effective oral targeted therapies. These oral therapies have the importance of adherence.

OBJECTIVES

• This study examined the rates and effect of real-world non-adherence, from a patient perspective, among those using treatments where such oral therapies are the standard of care.

METHODS

Sample Source
• Data from the 2012 U.S. NHWS were analyzed.

Patients who reported a diagnosis of either leukemia, melanoma, or NSCLC and reported currently using a treatment for their condition were included in the analyses.

Measures
• Adherence was measured using the MMS-6, modified for use in oncology.
• Sociodemographics and health history were assessed, as well as health outcomes measures.
• Work Productivity and Activity Impairment questionnaire (WPAI) modified for use in oncology.
• Income.

Figures

Table: Respondent Characteristics and Health Outcomes as a Function of Adherence vs. Non-Adherence, Across Tumor Types

Table 1:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Leukemia</th>
<th>Melanoma</th>
<th>NSCLC</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>62.28</td>
<td>54.31</td>
<td>65.0</td>
<td>58.5</td>
</tr>
<tr>
<td>Sex</td>
<td>65.0</td>
<td>65.5</td>
<td>66.7</td>
<td>65.6</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>African American</td>
<td>8%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Education</td>
<td>High school degree or less</td>
<td>73%</td>
<td>73%</td>
<td>73%</td>
</tr>
<tr>
<td>Employment</td>
<td>Standard</td>
<td>58.5%</td>
<td>65.5%</td>
<td>60.9%</td>
</tr>
<tr>
<td>Household Income in 2010</td>
<td>$50k to &lt;$75k</td>
<td>35.3%</td>
<td>32%</td>
<td>28%</td>
</tr>
<tr>
<td>Smoking Status</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exercise: 12+ times a month</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Health Insurance</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of Times Hospitalized in Past Month</td>
<td>0.42</td>
<td>0.42</td>
<td>0.42</td>
<td>0.42</td>
</tr>
</tbody>
</table>
| Hospitalizations as a Function of Adherence vs. Non-Adherence, Across Tumor Types

RESULTS

• A total of 103 respondents were included in the analyses (42, 43, and 20 with leukemia, melanoma, and NSCLC, respectively) (see Table).
• Most respondents were male (68.9%) and the mean age was 51.1 years (SD=13.78). Across the three tumor types, 65.0% of respondents reported some form of non-adherent behavior (71.4%, 58.5%, and 65.0% for leukemia, melanoma, and NSCLC, respectively).
• Pooling tumor types, patients who were non-adherent significantly worse mental health status compared with patients who were adherent (mean=44.41 vs. 49.08, p=.07).
• Similar trends (though only marginally significant) were observed for hospitalizations (mean=0.97 vs. 0.42, p=0.11) and emergency room visits (mean=1.18 vs. 0.25, p=0.07) in the past six months (see Figures 2 and 3).

CONCLUSIONS

• These results suggest a significant level of non-adherence among patients being treated for leukemia, melanoma, and NSCLC. Although statistical power was modest due to small sample size, preliminary results suggest a deleterious effect of non-adherence on health outcomes.
• As more oral targeted therapies emerge, an emphasis should be placed on improving adherence rates to maximize treatment benefit and reduce societal costs.

References

Figure 1: MICS Scores as a Function of Adherence vs. Non-adherence, Across Tumor Types

Figure 2: Hospitalizations as a Function of Adherence vs. Non-adherence, Across Tumor Types

Figure 3: ER Visits as a Function of Adherence vs. Non-adherence, Across Tumor Types