INTRODUCTION

OBJECTIVES

- Differentiated thyroid cancer (DTC), including papillary and follicular histologies, represents approximately 60% of all thyroid cancers.

- Most patients with DTC have an excellent prognosis after receiving standard treatment, consisting of surgery and/or radioactive iodine (RAI). However, a subset of patients prove to have progressive DTC which is refractory to RAI (RRDTC). Treatment options for RRDTC are limited.1

- The primary Objective of this study was to compare patient- and resource-related differences among patients managed with different treatment approaches. Specifically, patients were categorized into type of RRDTC management (e.g., MKIs versus non MKIs) and those managed by WW or local therapy only.

METHODS

Sample

- Data were collected by performing a retrospective chart review study in the US and 5EU (France, Germany, Italy, Spain, UK) with patients recruited from an online panel. Physicians provided clinical information on 1 to 4 of their RRDTC patients in an online survey. Demographics, disease history, treatment information, and healthcare resource were included and reported descriptively. Healthcare resource included total treatment costs using a generic linear model.

- Patients: 100 physicians (y=1) provided clinical information on 1 to 4 of their RRDTC patients in an online survey. They were recruited through an online panel of physicians and were contacted based on specialty to participate in this physician-based survey with RRDTC patients. Original sample size was estimated at 160 physicians to achieve the total analysis (primary physicians, without 4% of US and 5% of 5EU physicians). We have 211 patients to include in this analysis (primary physicians, without 4% of US and 5% of 5EU physicians).

- Physicians: 100 physicians (y=1) participated in the survey.

Physician Demographics and Characteristics

- Demographics: Gender, age, and country were collected for each physician.

- Practice Characteristics: Specialty and primary practice were also collected.

Physicians' practice demographics and characteristics were collected for each physician.

- Demographics: Gender and age were reported for each of the patients.

- Practice Characteristics: Specialty and primary practice were also collected.

Physicians' practice demographics and characteristics were collected for each physician.

Statistical Analysis

- Description statistics were conducted for physician demographics and characteristics as well as patient demographics and treatment information.

- General linear models were then conducted to determine the association of management classes with resource use.

RESULTS

Table 1. Physician Demographics and Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (n=100)</th>
<th>WW (n=31)</th>
<th>Local Therapy Only (n=307)</th>
<th>MKIs (n=16)</th>
<th>Single-specialty (n=211)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (%)</td>
<td>69.0%</td>
<td>73.8%</td>
<td>67.1%</td>
<td>68.8%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>58.2 (12.4)</td>
<td>62.0 (12.3)</td>
<td>55.8 (12.4)</td>
<td>56.4 (12.4)</td>
<td>58.2 (12.4)</td>
</tr>
<tr>
<td>Age ≥ 65 (%)</td>
<td>28.0%</td>
<td>30.0%</td>
<td>30.0%</td>
<td>26.9%</td>
<td>26.8%</td>
</tr>
<tr>
<td>Gender, Age, and Country</td>
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</table>

Physician Demographics and Characteristics

- Systemic treatment was the predominant treatment for RRDTC, with 68.2% of all patients.

- The remaining 31.8% were managed by WW or local therapy only.

- Among patients diagnosed with RRDTC, WW and non-systemic management options remain a concern. A single dioxide-benzoquinone is often observed during the first 12 months after diagnosis.

- Some patients may have undergone clinical trials as a result of enrollment treatment.

Physicians' practice demographics and characteristics were collected for each physician.

- We compared patient- and resource-related differences among patients managed with different treatment approaches. Specifically, patients were categorized into type of RRDTC management (e.g., MKIs versus non MKIs) and those managed by WW or local therapy only.

- Hospitalizations Collectively

- On average, patients were reported to have 15.3 hospitalizations in the past 12 months due to disease-related and treatment-related complications. There were no significant differences between management types.

- Hospitalizations Individually

- Patients with systemic management had 5.9 hospitalizations in the past 12 months due to disease complications.}

REFERENCES


LIMITATIONS

- An inherent limitation of most retrospective medical record abstractions, respondents selected for study inclusion will represent a convenience sample.

- Because the selection of self-reported data by physicians from charts, as well as some subjective measures reported by physicians, recall bias may introduce additional measurement error.

- In particular, hospitalization data should be interpreted with caution as physicians may not have recorded hospitalizations and are willing to report.

- Additionally, there is difficulty in separating patients into groups based on type of disease progression and cancer-specific symptoms as some with most progressive disease may require treatment in different management types (e.g., milder vs. severe systemic management).

- Lastly, because of the enrollment and exclusion criteria, it is possible that our sample consists of RRDTC patients with more severe disease than limiting generalizability to the entire RRDTC population.

CONCLUSIONS

- Among patients diagnosed with RRDTC, WW and non-systemic management options remain common.

- Only about half of those diagnosed with RRDTC are currently receiving systemic treatment.

- Of those on systemic treatment, MKIs are the most commonly prescribed treatment. Cytotoxic chemotherapy is also very commonly prescribed.

- Our findings show that patients receiving BRAF inhibitors and/or MKIs visited the physician more often in the past 12 months than those on non-systemic management. However, we do not know the reason for the visits (e.g., scheduled and/or clinic check-up, etc.) as the reasons for visits vary among the groups.

- There were no significant differences in the roles of hospitalizations between those receiving RAI, cytotoxic chemotherapy, selective BRAF inhibitors, or non-systemic management.

- However, overall a large direct cost burden exists given the frequent hospital stays for these patients.