Innovative Approach to Improve Completeness of Treatment in Cancer Registry Data

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Background

In order to comply with Louisiana legislative obligation and meet the funding agencies’ requirement for 12-month data completeness, Commission on Cancer (CoC) hospitals in Louisiana are required to transmit reportable cancer cases to Louisiana Tumor Registry (LTR) within 6 months after diagnosis. However, enforcing the timely reporting of cancer cases from CoC hospital registries has resulted in incomplete treatment information for some cases, particularly the adjuvant treatment. Although additional treatment information can be obtained via NAACCR modified (NM) abstracts, any updates made after the initial data submission would trigger a new NM record flag in each CoC hospital registry’s database for inclusion of case export in the next transmission file to the LTR. As a result, multiple NM records for the same cancer case may be sent to the LTR and result in multiple labor-intensive consolidations. To avoid this, CoC facilities are requested to retransmit their data to LTR 15-month after diagnosis to update treatment related information.

Objectives

- To demonstrate an innovative approach to improve completeness of treatment related data items in the cancer registry database.
- To assess the improvement of treatment data via the 15-month data retransmission.
- To identify potential missed cases.

Methods

**Data Source:**

15-month retransmitted data on 2013 NAACCR abstracts were received from 33 CoC hospitals and radiation treatment centers. About 19% (N = 5,077) of distinct abstracts with updates had at least one update related to treatment. Figure 2 shows the percentage of 15-month resubmitted abstracts with update(s) by reporting hospital. The percent of abstracts with updates varied by reporting hospital. The range was from 12.7% to 49.9%.

A total of 16,030 updates, an average of 3 updates per known to radiation therapy ended 8.6 11.1 10.6

**Table 1. Percentage of coding value changes for (a) surgery, (b) systemic & (c) radiation treatment : Known to known and Unknown to known**

<table>
<thead>
<tr>
<th></th>
<th>Surgery</th>
<th>Systemic Treatment</th>
<th>Radiation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Known to Known</strong></td>
<td>16.1 14.9 14.4</td>
<td>36.4 26.6 24.4</td>
<td>3.3 10.4 9.0</td>
</tr>
<tr>
<td><strong>Unknown to Known</strong></td>
<td>21.1 24.6 23.4</td>
<td>23.0 27.9 26.3</td>
<td>6.9 10.2 9.2</td>
</tr>
<tr>
<td><strong>All</strong></td>
<td>37.2 39.5 37.8</td>
<td>59.4 54.5 50.7</td>
<td>10.2 20.6 18.2</td>
</tr>
</tbody>
</table>

**Results**

A total of 26,916 resubmitted 2013 NAACCR abstracts were received from 33 CoC hospitals and radiation treatment centers. About 19% (N = 5,077) of distinct abstracts with updates had at least one update related to treatment. Figure 2 shows the percentage of 15-month resubmitted abstracts with update(s) by reporting hospital. The percent of abstracts with updates varied by reporting hospital. The range was from 12.7% to 49.9%.

In addition, 122 potential new cases were identified, 45 of them were truly missed cases after investigated. Lung cancer was the major missed cancer site followed by prostate and breast cancer (Figure 3).

**Conclusions**

- Linking 15-month resubmitted data is a cost-effective approach to obtain complete treatment information.
- Majority of updates for systemic and radiation therapy was obtaining additional treatment information.
- Surgery on primary site and chemotherapy were more likely to receive the updated information. Most of them were changed form NOS to more specific treatment.
- 15-month data resubmission is also a good approach to identify potential missed cases.

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