Background

Cancer is a reportable disease for hospitals and physicians in Florida. The Florida Department of Health (FDOH) and Florida Cancer Data System (FCDS) are using reported data and treatment information collected for cancers of the colon, rectum, breast, and chronic myeloid leukemia diagnosed in 2011 and reported by providers in Miami-Dade, Broward, Palm Beach, Hillsborough, and Orange counties. These counties were selected because they collectively represent approximately 70% of the state Hispanic population.

Objectives

The objective of this study is to link routinely collected cancer registry data with enhanced patient treatment information to address specific comparative effectiveness research (CER) questions as they relate to patient biomarker status and treatment outcomes.

The Centers for Disease Control, along with the Agency for Healthcare Research and Quality, selected these CER questions:

1. Are colorectal cancer patients tested for KRAS and are the results used to determine appropriate treatment?
2. What impact does KRAS testing have on 2-3 year survival among colorectal cancer patients?
3. Are chronic myeloid leukemia patients being tested for the BCR-ABL2 gene and receiving appropriate treatment according to those results?
4. Are women with breast cancer being tested for HER2, progesterone receptor, and estrogen receptor status and are they being treated appropriately?

Methods

The FDOH and FCDS are enhancing routinely collected registry data by employing a variety of strategies. FCDS CER coordinators are collecting detailed treatment information at hospital facilities in the CER counties by accessing hospital medical records and infusion center records either on-site or with remote access. Patient data are captured through hospital abstracts, discharge, mortality and e-pathology reports as well as from physician offices. Follow-back to medical oncologist are approached using similar strategies with the option to submit medical claims data as a way to provide treatment information. Data linkages to the National Death Index, Florida Agency for Health Care Administration (AHCA), U.S. Census, and Medicaid databases are used to provide patient comorbidities, vital status, and area-based socioeconomic conditions.

Table 1: Five county catchment area with estimated number of targeted cancers.

<table>
<thead>
<tr>
<th>County</th>
<th>Breast</th>
<th>Colorectal</th>
<th>CML</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miami-Dade</td>
<td>1,547</td>
<td>1,209</td>
<td>30</td>
<td>2,786</td>
</tr>
<tr>
<td>Broward</td>
<td>1,278</td>
<td>840</td>
<td>22</td>
<td>1,140</td>
</tr>
<tr>
<td>Hillsborough</td>
<td>797</td>
<td>569</td>
<td>18</td>
<td>1,334</td>
</tr>
<tr>
<td>Orange</td>
<td>627</td>
<td>419</td>
<td>19</td>
<td>1,065</td>
</tr>
<tr>
<td>Palm Beach</td>
<td>1,047</td>
<td>732</td>
<td>23</td>
<td>1,802</td>
</tr>
</tbody>
</table>

Results and Outcomes

- The availability of data details are specific to hospital information systems and physician facilities
- Out of 170 CER facilities reporting thus far, 62% are hospitals
- Many hospital systems use discrete data combined with scanned images and do not have in-house infusion centers, requiring additional follow back
- FCDS is using software to receive medical claims data in standard insurance industry record layout and procedural codes
- Crosswalks are being developed to complete NAACCR record conversions for data received from different sources of providers
- Professional oncology associations have been engaged in physician outreach efforts to improve reporting.

Acknowledgements

Project outcomes to date have been possible as a result of cooperation from providers in targeted sites. We thank the many hospital administrators, abstractors, and other staff at CER facilities. The Florida Cancer Control and Research Advisory Council has provided professional advocacy to improve physician reporting. ICF-Macro has provided technical assistance. This project is funded by the Centers for Disease Control and Prevention.