Translating Medical Claims into Meaningful Cancer Data

JUDY BONNER, RN, MS, CTR
FLO RIDA CANCER DATA SYSTEM
ANNUAL MEETING
JULY 27, 2016
Claims Project
Background

How did this begin?
CER Study 2011-2013
Remote and onsite detailed data collection
Simultaneous pilot project with physician claims
Claims Project Background

- **Gold Standard-CER**: 45%
- **Registry**: 28%
- **Claims**: 41%
- **Registry+Claims**: 45%
Claims Project Background

- CER Sustainability a problem
- Medical Claims possibilities
- NPCR requires ambulatory physicians to report
Claims Project Goals

**Enhance** first course treatment and date of last contact

**Case Find** cases diagnosed/treated in the physician office missed by traditional hospital reporting

**Minimize** burden on physician to meet reporting requirements
Claims Data – Other Uses

Identify research data in greater detail

- Class of drug or specific medications used
- Gaps in treatment
- Precise surgical procedures or radiation therapies given
Incorporate/Operationalize Medical Claim Form Electronic Data

- National standard record layout currently used by every private practitioner in the nation
  - 837 Record, Version 5010A
  - Same file sent to insurance company can be sent to the Central Registry
- Data submitted to the FCDS at the same time as physician’s insurance submission – same file, same time, minimize burden
Claims Project Background

- Using existing insurance industry standard record layout (837 record)
  - Patient demographics
  - Patient diagnosis codes (ICD9 and now ICD10)
  - Procedure codes -- Cancer directed treatment (CPT/HCPCS)
  - Date of last contact
Claims Project Background

- What is NOT collected on the 837 record
  - Social Security Number (limited)
  - Race
  - Ethnicity
  - Diagnosis Date (earliest service date serves as proxy)
  - Histology (hematopoietic derived from ICD9/ICD10)
  - Behavior (improvements in ICD10)
  - Laterality (improvements in ICD10)
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Date</th>
<th>Provider NPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness (First symptom) or Injury (Accident) or Pregnancy (LMP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Patient Has Had Same or Similar Illness Give First Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOSPITALIZATION DATES RELATED TO CURRENT SERVICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OUTSIDE LAB?</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Diagnosis or Nature of Illness or Injury</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid Resubmission Code</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Authorization Number</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Claims Project Background**

**HCFA 1500**

**Diagnosis**
### Claims Project Background

**HCFA 1500**

#### Procedures/Treatments

<table>
<thead>
<tr>
<th>Date(s) of Service</th>
<th>Procedure Codes</th>
<th>Diagnosis Pointer</th>
<th>Charges</th>
<th>Days or Units</th>
<th>NPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM/DD/YY MM/DD/YY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Service Dates**: MM/DD/YY
- **Procedure Codes**: CPT/HCPCS

---

*Note: This image is a screenshot of the HCFA 1500 form, highlighting the fields for service dates and procedure codes.*
Implementation Plan

- **Translate Claims Coding ➔ Cancer Registration Coding**
  - ICDO3/ICD-O-3/FORDS
  - ICD9 – Diagnosis and Procedure codes
  - ICD10 - Diagnosis and Procedure codes starting 10/2015
  - HCPCS – Healthcare Common Procedure Coding System

- **Map claims data into cancer treatment crosswalks for standardized translation**

- **Use the translated data in the central cancer registry and hospital cancer registries to enhance case identification, initial course of therapy completion, and recurrence or progression of cancer and subsequent therapy**
Current Claims

- ~14.3 million claims have been captured since late 2013
- ~1,400 physician reporting claims

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Registered</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatology</td>
<td>882 (1,002 licensed)</td>
<td>649</td>
</tr>
<tr>
<td>Oncology/Heme/Uro</td>
<td>1,229 (1,332 licensed)</td>
<td>752</td>
</tr>
<tr>
<td>Other (non-target)</td>
<td>1,150</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>3,261</td>
<td>1,401</td>
</tr>
</tbody>
</table>
Current Status

- The past year focused on updating ICD-9 and ICD-10-CM, CPT and HCPCS crosswalks to include latest information.
- Collaboration with SEER and CDC staff for input and feedback.
- Ongoing testing of the current crosswalks with live data for validation.
<table>
<thead>
<tr>
<th>CODE</th>
<th>FULL_DESCRIPTION</th>
<th>CODE_FORMATTED</th>
<th>Primary Site</th>
<th>Laterality</th>
<th>Histology</th>
<th>Behavior</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>C50112</td>
<td>Malignant neoplasm of central portion of left female breast</td>
<td>C50.112</td>
<td>C50.1</td>
<td>2</td>
<td>8000</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>
Crosswalk Example: ICD-10 CM
Carcinoid

<table>
<thead>
<tr>
<th>CODE</th>
<th>FULL_DESCRIPTION</th>
<th>CODE_FORMATTED</th>
<th>Primary Site</th>
<th>Laterality</th>
<th>Histology</th>
<th>Behavior</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>C7A021</td>
<td>Malignant carcinoid tumor of the cecum</td>
<td>C7A.021</td>
<td>C18.0</td>
<td>0</td>
<td>8240</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>
Crosswalk Example: ICD-10-CM

<table>
<thead>
<tr>
<th>CODE</th>
<th>FULL_DESCRIPTION</th>
<th>CODE_FORMATTED</th>
<th>Primary Site</th>
<th>Laterality</th>
<th>Histology</th>
<th>Behavior</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>C9210</td>
<td>Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission</td>
<td>C92.10</td>
<td>C42.1</td>
<td>0</td>
<td>9875</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>-----------</td>
<td>------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------</td>
<td>--------------</td>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td>CPT 45385</td>
<td>Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique</td>
<td>Surgical Treatment of Primary</td>
<td>C18</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>20</td>
</tr>
<tr>
<td>CPT 45385</td>
<td>Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique</td>
<td>Surgical Treatment of Primary</td>
<td>C19</td>
<td>9</td>
<td>*</td>
<td>*</td>
<td>20</td>
</tr>
<tr>
<td>CPT 45385</td>
<td>Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique</td>
<td>Surgical Treatment of Primary</td>
<td>C20</td>
<td>9</td>
<td>*</td>
<td>*</td>
<td>20</td>
</tr>
</tbody>
</table>
### Crosswalk Example: HCPCS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J9328</td>
<td>Injection, temozolomide, 1 mg</td>
<td>Chemotherapy Treatment</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>01</td>
<td>Chemotherapy as first course therapy</td>
<td>1390</td>
</tr>
</tbody>
</table>
Future Direction

- WORK IN PROGRESS
- Currently working on ICD-10-PCS crosswalk
- Further testing of crosswalks on real claims data for validation
- Implement crosswalks to improve registry data
- Continue collaboration with SEER and CDC for more detailed pharmacy data
  Especially pharmacy data for oral medications prescribed in MD office
Contributors:
Claims Crosswalk Workgroup
Steven Peace, BS, CTR
Laurel Gray, CTR
Wendy Scharber, RHIT, CTR
Quyen Tran, PharmD
Valentina Petkov, MD, MPH
Judy Bonner, RN, MS, CTR

Thank you to Gary Levin, Monique Hernandez and Steve Peace for their help in preparation and review of this presentation.
Questions?