Linking Cancer Registries with Claims Data to Enable Community Oncology Reporting

June 14, 2018
NAACCR Annual Conference

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HICOR - Community Oncology Reporting

1. Performance Measurement
   - Guideline Adherence
   - Cost of Care

2. Stakeholder Engagement
   - Regional Network
   - Value in Cancer Care Summit

3. Intervention Development
   - Community-driven
   - Scientifically designed

4. Measure change
   - Practice patterns
   - Outcomes, Costs
THE PATIENT STORY

Data driven insights

Diagnosis  Treatment  Continuing care  End of life
THE PATIENT STORY

- CANCER REGISTRY, pathological outcomes
- CLAIMS, utilization and costs

Data driven insights

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THE PATIENT STORY

- CANCER REGISTRY, pathological outcomes
- CLAIMS, utilization and costs
- EMR (Electronic Medical Forms), clinical results
THE PATIENT STORY

Data driven insights

CANCER REGISTRY, pathological outcomes
CLAIMS, utilization and costs
EMR (Electronic Medical Forms), clinical results
PROs (Patient Reported Outcomes) quality of life and patient experience
THE PATIENT STORY

Data driven insights

- CANCER REGISTRY, pathological outcomes
- CLAIMS, utilization and costs
Data driven insights

THE DATABASE

HEALTH CARE CLAIMS

DATES
2007 - 2017

Data Sources
Premera Blue Cross
Regence BlueShield
WA Medicaid/UMP
Medicare

CANCER REGISTRY RECORDS

DATES
2007 - 2017

Data Sources
WSCR
CSS
THE DATABASE

Data driven insights

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CANCER REGISTRY RECORDS

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269,000 cancer patients linked between the two data sources
THE DATABASE

Data driven insights

HEALTH CARE CLAIMS

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CANCER REGISTRY RECORDS

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269,000 cancer patients linked between the two data sources

Over 160,000 patients enrolled at time of diagnosis
THE DATABASE

Data driven insights

HEALTH CARE CLAIMS

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CANCER REGISTRY RECORDS

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Data Sources
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269,000 cancer patients linked between the two data sources

Almost 55,000 patients enrolled at time of death
Community Cancer Care in Washington State: Cost and Quality Report 2018

- Public clinic-level report
- Facilitate discussion
- Help prioritize quality improvement programs

www.fredhutch.org/cancer-care-report
What’s in the report

Quality

Recommended Treatment
- Breast, Colorectal, and Lung Cancer
- Breast Cancer

Hospitalization During Chemotherapy

Follow-up Testing after
- Breast, Colon, and Lung Cancer Treatment
- Breast Cancer Treatment

End of Life Care

Cost of Episodes of Care

Treatment period

6 months after first chemotherapy

13 months after last treatment

Last 30 days of life
What’s in the report

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End of Life Care

Cancer registry elements:
- Age
- Gender
- Census tract
- Date of diagnosis
- Tumor site
- Sequence number
- Stage
- Tumor size
- Histology
- ER, PR, HER2/neu status
- Date of death
End of Life Care

Chemotherapy

>1 ED Visit

ICU

Hospice
End of Life Care

Summary Quality Score

-30%  -20%  -10%  0%  10%  20%  30%
-10.0%  10.0%  10.2%  15.8%  12.8%  10.5%  10.5%  8.3%  7.8%  5.2%  1.4%  1.4%  1.6%  -1.9%  -5.0%  -10.4%  -11.3%  -11.7%  -12.8%  -14.9%  -15.6%  -20.7%  -21.8%  -22.9%  -30.4%
End of Life Care

Regional average cost: $14,494
Last 30 days of life
Cost range: $4,832
Summary quality score range: 61.8%

Strong negative relationship, suggesting that efforts to improve quality may also lower costs.
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Community Engagement Program
Community Engagement and Value in Cancer Care Summit

- VCC Steering Committee
- Data Methods Committee
- Working Groups
- Provider Meetings

Annual Value in Cancer Care Summit
HICOR IQ

Built to engage.

A single resource to be used by payers, providers, and researchers for information about quality and cost of cancer care.

SIGN UP
HICOR IQ

HICOR IQ is an oncology informatics platform built on the HICOR database

User generated reproducible, community-wide standard analytics
Use data visualization platform to understand barriers to care and challenges for vulnerable populations.

Use AI, machine learning and biosensors for early identification of treatment-related symptoms to reduce ER visits during chemotherapy.
75% of our scientific portfolio leverages the registry-claims linked database
Community Cancer Care in Washington State: Cost and Quality Report 2018

www.fredhutch.org/cancer-care-report
THANK YOU