



CERCIT Workshop 3: Cancer Effectiveness Research and the Texas Cancer Registry

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Overview of Workshop

- Introduction to comparative effectiveness research
- Use of a linked cancer registry with Medicare claims database for cancer effectiveness studies
- Cancer registry data
- The Medicare program
- Description of the Medicare data files
- Research examples of CERCIT mentors
- Limitations and methodological issues of the linked data

Use of a Linked Cancer Registry with Medicare Claims Database for Cancer Effectiveness Studies: Examining Trajectories of Cancer Care

Screening -> Diagnosis -> Treatment ->
Survivorship -> Recurrence ->
End of life Care/Death

Cancer Effectiveness Research on Screening

- Use of screening services
- Impact of changing technology and screening guidelines
- Influence of practice patterns on cancer detection
- Performance of screening tests (sensitivity and specificity)

Cancer Effectiveness Research and Diagnosis

- Factors that influence stage at diagnosis
- Disparities in stage at diagnosis
- Patterns of of diagnostic procedures
- Delays in diagnosis

Cancer Effectiveness Research and Treatment

- Patterns of care
- Peri-operative complications
- Volume/outcome studies
- Influence of clinical trials and treatment guidelines
- Disparities in cancer care

Cancer Effectiveness Research and Survivorship

- Late effects of treatment
- Use of screening procedures

Cancer Effectiveness Research and Recurrence

- Rates of recurrence
- Relationship of treatment and surveillance on recurrence
- Time to recurrence

Cancer Effectiveness Research and End of Life Care/Death

- Use of hospice service
- End of life patterns of care
- Effect of cancer treatment on survival

TX Cancer Registry Data: Selected Elements

- Clinical Variables
 - Cancer site
 - Stage
 - Tumor size
 - Date of dx
 - Tumor grade
 - Vital status
- Cancer Treatment
 - Surgery
 - Radiation
- Socio-demographic
 - Gender
 - Age at dx
 - Race
 - Spanish/Hispanic Origin

Medicare Program

- Eligibility
 - Age 65 and older
 - Selected adults with disabilities
- Part A
 - Inpatient hospitalizations
 - Hospice care
 - Home health
 - Skilled nursing facilities
- Part B (physician, outpatient facility, durable medical equipment)
- Part C (managed care, 1985)
- Part D (medications, 2006)

Selected MEDPAR (Hospital) Data Elements

- Hospital ID
- Admission source
- Admission type
- Diagnoses
- Procedures
- DRG
- Total Charges
- Total reimbursements
- ICU days
- Discharge status
- Length of stay

Selected Physician/Supplier Data Elements

- Physician ID
- Diagnosis
- Procedure
- Date of service
- Reimbursement
- Charge

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- Screening

Measuring breast cancer screening with claims

Performance of screening mammography in
community practice

Reducing the effects of lead-time bias, length
bias and over-detection in evaluating the effect
of screening mammography on breast cancer
mortality

Mammography use in women 80 years and
older

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- Diagnosis

Relationship of screening to size and stage of breast cancer at diagnosis

Disparities in stage and size of breast cancer at diagnosis

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- Treatment

- Patterns in use of chemotherapy

- Disparities in receipt of adjuvant chemotherapy

- Completion of radiation therapy

- Use of intravenous bisphosphonates

- Outcomes of adjuvant chemotherapy

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- Surveillance

Cardiac morbidity of adjuvant radiation therapy

Impact of diabetes on complications and
outcomes of chemotherapy

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- End of Life Care

Decreasing variation in use of hospice

Hospice use by Hispanic and non-Hispanic
white cancer decedents

Research on Breast Cancer Care with Linked Data: CERCIT Mentors

- Death

Effect of depression on survival of older women with breast cancer

Impact of treatment and SES on racial disparities in survival

Limitations and Methodological Issues with the Linked TX Registry/Medicare Data

- Limitations

- Some Clinical services not captured in claims
- Missing claims for HMO enrollees
- Sensitivity of the diagnosis and procedure codes varies by condition
- Limitations of methods/measures to assess comorbidity or severity of illness
- Limited data on cancers affecting younger populations
- Variation in coding practices across institutions
- Circumstances involving treatment decision not captured in claims

Limitations and Methodological Issues with the Linked TX Registry/Medicare Data

- Methodological Issues/Approaches
 - Limit cohorts to beneficiaries likely to have claims over the study period
 - Develop and evaluate algorithms to identify clinical conditions or treatments of interest
 - Combine information across data sources (Cancer Registry/Claims) to capture cancer treatment
 - Limit analyses of “appropriate care” to groups of patients (not individual patients)