Slide 1

Gettin' into the Cancer Registry Groove!

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Slide 2

Groovy Objectives!

- Learn your position as a registrar in regards to:
  - Reporting
  - Abstracting
  - Manuals
  - Quality Control
- Recognize the role of the Arkansas Central Cancer Registry

Slide 3

The Role of the Reporter

- Identifying reportable cancer cases
- Case finding
  - Disease Index
  - Pathology reports
    - Cytology reports
    - Autopsy reports
  - Outpatient surgery logs/appointment books
  - Radiation Oncology logs/appointment books
  - Medical Oncology logs/appointment books
  - CPT coding index

Slide 4

Reportable List

- Document defining case finding within a cancer registry
- Reportable cases (refer to ICD-O-3)
  - Behavior code of 2 (*in situ*) or 3 (invasive)
    - Carcinomas
    - Sarcomas
    - Melanomas
    - Leukemias
    - Lymphomas
  - Behavior code of 0 (benign) or 1 (borderline)
    - Non-malignant primary intracranial and central nervous system tumors

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Ambiguous Terms

- Considered Diagnostic of Cancer (reportable)
  - Compatible with
  - Consistent with
  - Most likely
  - Probable
  - Suspect
  - Suspicious
  - Apparent(ly)

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Ambiguous Terms

- Reportable (continued)
  - Appears
  - Comparable
  - Favors
  - Malignant appearing
  - Presumed
  - Typical of
  - *Tumor or Neoplasm

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Ambiguous Terms

- Not considered diagnostic of cancer
  - Equivocal
  - Questionable
  - Possible
  - Suggests
  - Worrisome
  - Potentially malignant
  - Cannot be ruled out

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Is This Reportable?

- Case A
  - 1/27/07: CT of the chest: 2cm x 3cm mass in left upper lobe of the lung suspicious for primary malignancy. No evidence of mediastinal lymphadenopathy noted.

Image source: http://rad.usuhs.edu/medpix/medpix_image.html?imageid=31261

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Is This Reportable?

- Case B
  - 1/29/07: Screening mammogram: 3cm mass noted in the upper outer quadrant of the right breast. Margins irregular and spiculated with some architectural distortion. Possible primary breast cancer. Biopsy recommended.

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Is This Reportable?

- Case C
  - 2/3/07: CT of the abdomen and pelvis: 7cm mass in the lower pole of the right kidney compatible with renal cell carcinoma. There is no evidence of extension of the mass outside of the kidney on imaging.

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Is This Reportable?

- AIDS
- Intraductal carcinoma of breast
- Crohn's disease of colon
- Malignant melanoma
- Squamous cell carcinoma of the skin
- Brain tumor

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MPH Rules

Slide 13

The Role of the Reporter

- Multiple Primaries
  - Primary site
  - Laterality
  - Morphology
  - Timing of the diagnosis

Slide 14

The Role of the Reporter

- Single Primary
  - A *single* tumor is always a *single* primary.
    - The tumor may invade adjacent tissue or organs.
    - Prepare one abstract. Use the histology coding rules to assign the appropriate histology code.

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The Role of the Reporter

- Single Primary
  - Unknown if Single or Multiple Tumors
    - When it is not possible to determine if there is a *single* tumor or *multiple* tumors, opt for a single tumor and abstract as a single primary.
    - Prepare one abstract.

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The Role of the Reporter

- Multiple tumors may be a single primary or multiple primaries.
  - Examples of multiple primaries:
    - Melanomas of the right forearm and left shin
    - Separate tumors in the right and left breasts
    - A mucinous adenocarcinoma in the cecum and a scirrhous adenocarcinoma in the sigmoid

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The Role of the Reporter

- Examples of Single Primaries
  - Always a single primary:
    - Retinoblastoma
    - Kaposi sarcoma
  - Follicular and papillary tumors in the thyroid within 60 days of diagnosis
  - A frank *in situ* or malignant adenocarcinoma and an *in situ* or malignant tumor in a polyp
  - Multiple malignant polyps of the colon
  - Report only one adenocarcinoma of the prostate per lifetime of the patient

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The Role of the Reporter

- Multiple Primaries
  - Tumors with ICD-O-3 ***(International Classification of Diseases for Oncology, Third Edition)*** topography codes that are different at the second (C<u>x</u>xx) and/or third characters (Cx<u>x</u>x)
    - Example: A tumor of the cervix C5<u>3</u>9 and a tumor of the vulva C5<u>1</u>9 have different third characters in their ICD-O-3 topography codes, so they are multiple primaries.

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The Role of the Reporter

- Multiple Primaries
  - Tumors with ICD-0-3 topography codes that differ only at the fourth character (Cxxx) and are in any one of the following primary sites:
    - Anus and anal canal (C21_)
    - Bones, joints, and articular cartilage (C40-C41_)
    - Peripheral nerves and autonomic nervous system (C47_)
    - Connective subcutaneous and other soft tissues (C49_)
    - Skin (C44_)

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The Role of the Reporter

- Multiple Primaries
  - An invasive tumor following an ***in situ*** tumor more than 60 days after diagnosis is a multiple primary.
  - If it is impossible to determine if the tumors are from a single primary or multiple primaries, abstract as a single primary.

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The Role of the Reporter

- Multiple Primaries
  - Histology codes that differ at first, second, or third digit:
    - Cancer/malignant neoplasm, NOS (8000)
    - Carcinoma, NOS (8010)
    - Squamous cell carcinoma, NOS (8070)
    - Adenocarcinoma, NOS (8140)
    - Melanoma, NOS (8720)
    - Sarcoma, NOS (8800)
  - All other scenarios are single primaries.

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The Role of the Reporter

- Timing
  - Varies by site
    - More than one year apart
    - Three to five years apart
  - Exceptions
    - Non-malignant behavior of intracranial and central nervous system tumors
    - Bladder primaries (8120–8130)
    - Invasive adenocarcinoma of the prostate
    - Kaposi sarcoma of any site
    - Lymphoma and leukemia histologies

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The Role of the Reporter

- Tumor recurrence
  - Do not use a physician statement to decide if the patient has a recurrence.
  - The pathologist has to compare the present tumor with the original tumor and state that it is a recurrence.

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The Role of the Reporter

- Tumor recurrence
  - Local
  - Regional
  - Distant
- More in depth training:

  http://seer.cancer.gov/tools/mphrules/training_basics.html

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Abstract 101

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The Role of the Reporter

- Cancer registry abstract
  - Summary of a patient's cancer diagnosis and experience
  - Can be divided into 3 parts:
    - Patient-specific information
    - Facility-specific information
    - Tumor-specific information

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The Role of the Reporter

- Parts of an abstract
  - Patient-specific information
    - Patient name
    - Social security number
    - Race and ethnicity
    - Sex
    - Birth date
    - Birthplace
    - Current address

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The Role of the Reporter

- Parts of an abstract (continued)
  - Facility-specific information
    - Medical record number
    - Date of admission
    - Date of discharge
    - Hospital number
    - Class of case
    - Insurance

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The Role of the Reporter

- Parts of an abstract (continued)
  - Tumor-specific information
    - Address at diagnosis
    - Date of diagnosis
    - Reporting source
    - Sequence number
    - Diagnostic information
    - Primary site
    - Histology/behavior/grade

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The Role of the Reporter

- Tumor-specific information (continued)
  - Laterality
  - Tumor markers
  - Extent of disease
  - Diagnostic confirmation
  - Pathology or cytology reports
  - Treatment
  - Recurrence

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The Role of the Reporter

- A complete abstract contains both text and coded information.
- The text provides justification for the codes.
- The coded information is used to perform data comparisons.

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The Role of the Reporter

- Information management
  - Information needed:
    - Demographic information
    - Medical history
    - Procedures leading to diagnosis
    - Extent of disease
    - Therapies used to treat cancer
    - Outpatient treatment after diagnosis

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The Role of the Reporter

- The length of disease-free survival relative to recurrence
  - Measures various treatment modalities
  - Research protocols
  - Combinations of therapies

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Use those Manuals!

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ICD-O

- The ICD-O is listed in alphabetical order as well as a separate topography and morphology list.
- The topography code indicates the site of origin of a neoplasm— *Where did it start?*
- The morphology code indicates the type of cell that has become neoplastic— *What is it?*

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ICD-O

- Coding cancer
  - The ICD-O-3
    - Manual used to determine the primary site code (topography) and the histology (morphology) and behavior code of the primary site
    - Example: Upper lobe lung, invasive squamous cell carcinoma.

      Primary site: C341

      Histology code: 8070/3

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ICD-O

- Primary Site
  - C00.0-C80.9

C __ __. __

Site Sub-site

Example: C50.2

Breast Upper Inner Quad

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Primary Site

- Use medical records face sheet and discharge summary for physician's final diagnosis.
- Use pathology reports, imaging, physician statements, or other documentation.
- If no documentation is provided to identify primary site, code as unknown primary.

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Where Is the Primary Site?

- Case 1
  - Specimen description: Bladder tumor
  - Diagnosis: Infiltrating poorly differentiated transitional cell carcinoma (grade 3)

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Where Is the Primary Site?

- Case 2
  - Specimen description: Right breast biopsy
  - Diagnosis: Focal ductal carcinoma *in situ*, and foci of atypical ductal epithelial hyperplasia. An invasive lesion is not identified. Microcalcifications are evident.

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ICD-O

- Coding morphology
  - The morphology code has 3 parts:

__ __ __ __ / __ __
Histology behavior grade

Example: well-differentiated adenocarcinoma
8140/3 1
histology behavior grade

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ICD-O

- Coding tumor behavior
  - A tumor can grow in several ways:
    - /0 – Benign
    - /1 – Uncertain malignant potential (borderline)
    - /2 – Carcinoma ***in situ***
    - /3 – Malignant, invasive

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ICD-O

- Coding grade or differentiation
  - A tumor can be graded in several ways:
    - Grade I: well differentiated
    - Grade II: moderately differentiated
    - Grade III: poorly differentiated
    - Grade IV: undifferentiated/anaplastic

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Coding Histology, Behavior, and Grade

- Case 1
  - Diagnosis: Bladder tumor: infiltrating poorly differentiated transitional cell carcinoma (grade 3)

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Coding Histology, Behavior, and Grade

- Case 2
  - Diagnosis: Right breast biopsy: focal ductal carcinoma *in situ*, and foci of atypical ductal epithelial hyperplasia. An invasive lesion is not identified. Microcalcifications are evident.

Slide 46

Surgical Diagnostic & Staging

- Initial diagnosis & work-up
- Do NOT record aspirate, biopsy, or removal of regional LN
- Do NOT code excisional bx with clear or microscopic margins
- Do NOT code cytologic findings

Slide 47

Collaborative Staging

- Extent of Disease
  - Collaborative Staging Manual
    - Part I: Coding rules
      - Ambiguous Terms (p. I-20)
      - How to Code CS Elements (p. I-25-62)
    - Part II: Site-specific schemas
      - Site-specific factors (SSF)

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Collaborative Staging

- Extent of Disease
  - Primary site
  - Tumor size
  - Depth of invasion
  - Extension to regional or distant tissue
  - Regional lymph node involvement
  - Distant metastasis

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Collaborative Staging

- Stage
  - The common language developed by medical professionals to communicate information about a disease to others

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Collaborative Staging

- CS Tumor Size
  - Instructions (p. I-25-26)
- CS Extension
  - Instructions (p. I-28-29)
- CS Regional LN
  - Instructions (p. I-33-41)
- CS Distant Mets at Diagnosis
  - Instructions (p. I-47-48)

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Collaborative Staging

- Evaluation Fields
  - CS TS/Extension Eval (p.I-31-32)
    - Reflect the codes in Tumor Size & Extension
  - CS Regional LN Eval (p. I-43-44)
    - Reflect the code in CS Regional LN
  - CS Mets at Diagnosis Eval (p. I-49-50)
    - Reflect the code in CS Mets at Diagnosis

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Collaborative Staging

- SSF (Site Specific Factors)
  - Instructions p. I-51-62
  - No SSF for a scheme code: 888
  - Refer to the list of primary sites that use each SSF 1-6 to code information

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Case 1

67yo w/ 2wks constipation/ab pain

1/29/07 R hemicolectomy

1/29/07 sigmoid colon: adenoca, md, 3.5cm; into pericolonic fat; 6/7 pericolic LN

CEA normal

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Case 2

Palpable mass at about 6:00 L breast

7/07 mammo: abnormal mass 6:00 L breast

10/3/07 L breast excisional biopsy

10/3/07 L breast: DCIS, apocrine type; one focus microinvasion (less than 1mm)

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Treatment: FORDS

- First course of treatment
  - Surgery
  - Chemotherapy
  - Radiation therapy
  - Hormonal therapy
  - Immunotherapy
  - Hematologic transplant/endocrine procedures
  - Other treatments

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Treatment: FORDS

- Date First Course Treatment
  - Records date treatment began at any facility
- Date First Surgical Procedure
  - Earliest date of any of the following:
    - Surgery Primary Site
    - Scope Regional LN Surgery
    - Surgery Other Site

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Treatment: FORDS

- Date Most Definitive Surgical Resection of Primary Site
  - Most definitive primary site surgery
  - May be the same as that of Date First Surgical Procedure
- Date Surgical Discharge
  - Date discharged following primary site surgery

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Treatment: FORDS

- Surgery
  - Primary Site
    - Appendix B
  - Scope Regional LN
    - Record even if there is no surgery to primary
    - Record aspirate, biopsy and/or remove regional LN
  - Other Site
    - Surgery to distant LN and/or regional/distant tissue or organs

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Treatment: FORDS

- Radiation
  - Volume: Anatomic target
  - Regional Modality
  - Regional Dose (cGy)
    - Brachytherapy: 88888
  - Boost Modality
  - Boost Dose (cGy)
    - Brachytherapy: 88888
  - Number of Treatments: fractions
    - Brachytherapy/Implants = 1 fraction

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Treatment: FORDS

- Chemotherapy
  - Systemic method of cancer treatment
  - Affects the DNA synthesis and mitosis of the cell cycle
  - Adjuvant therapy: prophylactic treatment
    - In combination with or after other therapies

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Treatment: FORDS

- Types of chemotherapy
  - Alkalating agents
  - Antimetabolites
  - Antibiotics
  - Alkaloids
  - Miscellaneous
- SEER*Rx: Standard reference for systemic therapy
  - www.seer.cancer.gov/seerrx

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Treatment: FORDS

- Other Systemic Treatments:
  - Hormone
    - Prednisone when given w/ chemotherapy
    - Thyroid replacement
  - Immunotherapy
    - Biologic Response Modifier (BRM)
    - BCG- Bladder Cancer
    - Interferon

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Treatment: FORDS

- Other Systemic Treatments:
  - Hematologic Transplant and Endocrine Procedures
    - Bone Marrow Transplants (BMT)
      - Autologous
      - Allogenic
    - Stem Cell Harvest
    - Endocrine Radiation/Surgery
      - Must be bilateral
      - Bilateral orchiectomy = prostate cancer

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Treatment: FORDS

- Other Treatment:
  - Reportable hematopoietic diseases
    - Phlebotomy
    - Transfusions
    - Aspirin
  - Experimental
    - Institution based clinical trial
  - Double Blind
    - Involved in double blind clinical trial
  - Unproven
    - Non-medical personnel

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Treatment: FORDS

- Palliative Care
  - Care given in an effort to palliate or alleviate symptoms
    - Example: radiation to bone mets
  - Record type
  - Also code as FIRST course treatment

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Get it Together:

- Now, you take what you know and create an abstract
- Work on a few cases

Slide 67

Case 1

Pt with anemia, dizziness and blurred vision

9/25 Barium Enema: 3x7cm mass of cecum

10/5 R colectomy: PD adenocarcinoma of cecum, extension into serosal adipose tissue, ¼ mesenteric LN, 4/18 mesocolic LN

10/20 Chemo: FOLFOX4

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Case 2

6/4/07 L breast lump in LOQ, 2cm, no palpable LN

6/12/07 L breast bx @ 4:00: infiltrating ductal carcinoma

6/20/07 Excision bx L breast: 1.5cm infiltrating duct carcinoma, 0/1 sentinel LN, 0/6 axillary LN

7/14/07-8/28/07 radiation

9/1/07 Arimidex

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Quality Data

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Responsibilities of the Reporter

- Quality Control
  - A set of procedures intended to ensure that a performed service or product adheres to a defined set of quality criteria or meets the requirements of the client

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Responsibilities of the Reporter

- Quality through monitoring of data
  - Check the data
  - Identify any problems in the data
  - Fix the problems in the data

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Responsibilities of the Reporter

- Facility-based edits
  - Software edits
  - State-specific edits
  - National edits
  - Visual edits

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Responsibilities of the Reporter

- CCR's role in quality control
  - Sampling of abstracts
  - Process controls
  - Designed studies

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Central Cancer Registry

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What Central Cancer Registries Do

- Timeline of abstraction
- Edits
- Facility data to CCR
- Merging of abstracts
- Collection of missing data
- CCR data to national agencies
- Dissemination of data to other cancer agencies
- Quality control and education

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What Central Cancer Registries Do

- Timeline of abstraction:
  - Facilities usually required to report cases to the CCR within 6 months of diagnosis or date of admission.
  - CCR's must report 90% of expected cases to NPCR within 12 months of the close of the diagnosis year.

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What Central Cancer Registries Do

- Data transmission from facility to the CCR should occur at regular intervals agreed upon by the facility and their CCR.
- Form of transmission should be clearly stated and written into a policy and procedure for that facility.

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What Central Cancer Registries Do

- CCR edits
  - Visual editing
  - Software editing
  - Discrepancies
  - Reporting to facility

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What Central Cancer Registries Do

- Merging of Abstracts
  - Records received at the CCR are checked for duplicate patient reports.
  - Multiple reports for same patient are merged to capture most complete demographic data.
  - Multiple reports for same patient are checked for new tumors (same vs. new primary).
  - Multiple reports for the same tumor are merged to capture most complete diagnostic, staging, and treatment data.

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What Central Cancer Registries Do

- Collection of missing data
  - The abstract is edited and reviewed at the CCR for completeness.

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What Central Cancer Registries Do

- Data transmission from the CCR to the national agencies can only occur once all edits have been resolved, and the abstract is complete with all coding elements and treatment modalities.

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What Central Cancer Registries Do

- Dissemination of cancer data to other agencies
  - Data is shared with other administrative agencies, such as the parent agency, CDC, the North American Association of Central Cancer Registries (NAACCR), and the World Health Organization (WHO)
  - The American Cancer Society (ACS) also uses the statistical data collected to report trends in cancer incidence.

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In the Groove, Baby!

- Know the role you play as a cancer registrar- Be Proud!
- Realize the role of the Arkansas Central Cancer Registry

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Thank you

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