Florida Cancer Data System
A JOINT PROJECT OF THE SYLVESTER COMPREHENSIVE CANCER CENTER AND THE FLORIDA DEPARTMENT OF HEALTH

IMPROVING DATA QUALITY
FCDS' DATA QUALITY PROGRAM
AUDITS, EDITS AND DATA QUALITY REPORTS

FCDS Webcast Series
Steven Peace, BS, CTR
December 13, 2012

Continuing Education Hours

NCRA CEU #	Date(s)	Event	Sponsor	CEU Hrs
2012-065	7/26/2012 - 7/27/2012	FCDS Annual Conference, St Petersburg, FL	FCDS	9
2012-155	8/16/2012	FCDS Webcast Series: "What's New for 2012 and More - Annual Meeting Review"	FCDS	2
2012-156	1/8/2013	FCDS Webcast Series: "FCDS Learning Management System	FCDS	2
2012-157	10/18/2012	FCDS Webcast Series: "GYN Neoplasms-Background/Anatomy/Risk Factors/MPH Rules/CS02.04/SSF/Tx	FCDS	2
2012-158	12/13/2012	FCDS Webcast Series: "Improving Data Quality Using FCDS EDITS and Data Quality Reports"	FCDS	2
2012-159	1/17/2013	FCDS Webcast Series: "Pediatric Neoplasms Intro - Background/Anatomy/Risk Factors/MPH Rules/CSv02.04/SSF/Tx"	FCDS	2
2012-160	2/21/2013	FCDS Webcast Series: "Genitourinary Neoplasms - Background/Anatomy/Risk Factors/MPH Rules/CSv02.04/SSF/Tx"	FCDS	2

"Proposed" Spring Mini-Series - Pediatric Neoplasms
Part I - Pediatric Brain and CNS Tumors
Part II - Pediatric Myeloid and Lymphoid Neoplasms
Part III - Pediatric Sarcoma

Presentation Outline

- **National Data Collection Standards**
- **NPCR Program Standards**
- **FCDS Data Quality Program**
  - Data Quality Program Goals
  - Data Quality Program Methods
  - Data Quality Program Policy
  - Data Quality Program Procedures
  - Data Quality Program Audits
  - Data Quality Program Reports
- **FCDS Education and Training Program**
- Current Coding and Data Quality Issues
- References and Resources
- **Q&A**

National Data Collection Standards

- Vol I - Data Exchange Standards and Record Description
- Vol II - Data Standards and Data Dictionary
- Vol III - Standards for Completeness, Quality, Analysis, and Management of Data
- Vol IV - NAACCR Standard Edits
- Vol V - Pathology Laboratory Electronic Reporting Standards
- Registry Operations Guidelines and Standards in Development

Rule Makers for National Data Collection

CDC NPCR – FCDS Participates in NPCR
- State and Central Registries – Covers 98% of US Population
- Data Acquisition Manual

ACoS Commission on Cancer - Hospitals
- CoC approved hospital registries – Voluntary Program
- FORDS

NCI SEER Program
- SEER Registries – Covers 28% of US Population – Selected Populations
- 26 percent of African Americans, 41 percent of Hispanics, 43 percent of American Indians and Alaska Natives, 54 percent of Asians, and 71 percent of Hawaiian/Pacific Islanders.
- SEER Program Manual

NPCR Program Standards, 2012-2017

All funded programs must meet the following standards:
- Legislative Authority
- Administration
- Data Collection, Content, and Format
- Electronic Data Exchange
- Data Completeness/Timeliness/Quality
- Linkages
- Data Quality Assurance and Education
- Data Use and Data Monitoring
- Data Submission
- Collaborative Relationships

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NPCR Program Standards, 2012-2017

- Data being evaluated for the Advanced National Data Quality Standard (formerly known as the 12-Month Standard), must meet the following data quality criteria:
  - Data are 90% complete based on observed-to-expected cases as computed by CDC.
  - There is a 2 per 1,000 or fewer unresolved duplicate rate
  - The maximum percent missing for critical data elements are:
    - 3% age
    - 3% sex
    - 5% race
    - 3% county
  - 97% pass a CDC-prescribed set of standard edits.

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NPCR Program Standards, 2012-2017

- Data being evaluated for the National Data Quality Standard (formerly known as the 24-Month Standard), must meet the following five data quality criteria:
  - Data are 95% complete based on observed-to-expected cases as computed by CDC.
  - There are 3% or fewer death-certificate-only cases.
  - There is a 1 per 1,000 or fewer unresolved duplicate rate.
  - The maximum percent missing for critical data elements are:
    - 2% age
    - 2% sex
    - 3% race
    - 2% county
  - 99% pass a CDC-prescribed set of standard edits

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NPCR Program Standards, 2012-2017

- Data Quality Assurance and Education
  - The central cancer registry has an overall program of quality assurance that is defined in the registry operations manual.
  - The quality assurance program consists of, but is not limited to:
    - A designated certified tumor registrar (CTR) responsible for the quality assurance program.
    - Quality assurance activities should be conducted by qualified experienced CTR(s) or CTR-eligible staff.
    - At least once every 5 years, a combination of case-finding and re-abstracting audits from a sampling of source documents are conducted for each hospital-based reporting facility, and may include external audits by CDC or SEER.
    - Data consolidation procedures are performed according to the central cancer registry protocol and nationally accepted abstracting and coding standards as available.
    - Audits of a routine sample of consolidated cases at the central cancer registry.
    - Feedback is provided to reporting sources on data quality and completeness.

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NPCR Program Standards, 2012-2017

- Data Quality Assurance and Education
  - The central cancer registry has an overall education program that is defined in the registry operations manual.
  - The education program consists of, but is not limited to:
    - Training for central cancer registry staff and reporting sources to assure high quality data.
    - A designated education/training coordinator who is a qualified, experienced CTR.
    - Where feasible, the education/training coordinator may be regionally-based, such that CDC-NPCR applicants collaborate to identify one applicant to provide the education/training coordinator for activities to be carried out in the full region.

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The FCDS Data Quality Program

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FCDS' Data Quality Pyramid

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Foundation - Communication/Education

- Technical Answers by Telephone or E-mail
- Email (E-Mail Blast for Urgent or Timely Information)
- Email (Individual for questions or if you are having problems)
- FCDS IDEA (QC Review, Edits/Corrections, Documentation)
- FCDS RECAP – FCDS Internal Tool for Data Processing
- FCDS Monthly Memo – now every-other month
- FCDS Register – FCDS' Quarterly Newsletter
- FCDS On-Line Abstractor Training Course
- FCDS Annual Meeting – face-to-face
- FCDS Web Broadcasts

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FCDS Data Quality Program - Goals

- Goals:
  - Population-Based Reporting
  - Highest Quality Data Possible
  - Confidentiality, Privacy, Data Security

- Objectives:
  - Improve Communications
  - Improve Feedback Loop
  - Improve Completeness
  - Improve Timeliness
  - Improve Data Quality
  - Improve Usefulness
  - Improve Reports
  - Improve Education
  - Improve Training

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FCDS Data Quality Program - Goals

- Establish, perform, manage Quality Improvement/Quality Control projects
- Apply national and internal standards for data collection, aggregation, etc
- Systematically measure performance against those standards
- Develop measurement and evaluation tools
- Assess outcomes and performance measures
- Develop quality enhancement strategies
- Assess registry needs and satisfaction
- Monitor quality of data
- Provide education and training to improve data quality

FCDS Data Quality Program - Methods

- Florida Cancer Reporting Legislation
- Florida Public Health Administration Rules
- FCDS Policy and Procedures (FCDS DAM)
  - Internal Policy and Procedures
  - External Policy and Procedures
  - Monitoring Data Quality and Performance

- Quality Assurance / Quality Improvement Activities
  - Monitor operations workflow and data quality and take action to improve future quality, maximizing correct reporting and characterizing the reporting process in measurable terms.
- Perform External Linkage to Improve Data
  - Obtain and/or validate data items by linking central cancer registry databases with clinical and non-clinical state and national databases
    - Using death certificate data to add missing vital status and race
    - Using claims data to complete first course of treatment data

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FCDS Data Quality Program - Methods

- FCDS Policy
  - FCDS Abstractor Code Requirement
  - FCDS EDITS Requirement
  - Text Documentation Requirement
  - Deadlines and IT Security
- FCDS Procedures
  - FCDS IDEA – Communication/Transmission
  - FCDS Internal Data Processing Monitoring
  - **FORCES/CORRECTIONS/DELETIONS**
  - Patient and Tumor Linkage & Consolidation
- FCDS Monitoring / Audits
  - Audits for Completeness
  - Audits for Timeliness
  - Audits for Accuracy
- FCDS Data Quality Reports
  - Quarterly/Annual Status Reports
  - Ad Hoc Reports
  - Audit Results

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FCDS Data Quality Program - Policy

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FCDS Data Quality Program - Policy

FCDS Abstractor Code – A National Model for QC

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FCDS Data Quality Program - Policy

FCDS Text Documentation Requirements

APPENDIX L FCDS TEXT DOCUMENTATION REQUIREMENTS

Text documentation is an essential component of a complete electronic abstract and is heavily utilized in quality control, to validate data at time of FCDS and NPCR Audits, and for special studies. Text documentation is required to justify coded values and to supplement information not transmitted with coded values. **FCDS recommends that abstractors print and post this document for easy reference.** Adequate text is a data quality indicator and will be major part of QC.

Text documentation should always include the following components:

- Date(s) – include date(s) references – this allows the reviewer to determine event chronology
- Date(s) – note when date(s) are estimated [i.e. Date of DX 3/15/2011 (est.)]
- Location – include facility/physician/other location where the event occurred (test/study/treatment/other)
- Description – include description of the event (test/study/treatment/other) – include positive/negative results
- Details – include as much detail as possible – document treatment plan even if treatment is initiated as planned
- Include "relevant-to-this-person/cancer" information only – edit your text documentation
- DO NOT REPEAT INFORMATION from section to section
- DO USE Standard Abbreviations (Appendix B)
- DO NOT USE non-standard or stylistic shorthand
- Enter "N/A" or "not available" when no information is available related to any specific text area.

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FCDS Data Quality Program - Policy

FCDS Text Documentation Requirements

APPENDIX L FCDS TEXT DOCUMENTATION REQUIREMENTS

Text Data Item Name NAACCR Item # Field Length	Text Documentation Source and Item Description *FCDS Required Text Documentation* Example:
Text - Operative Report NAACCR Item #2560 Field Length = 1000	Enter text information from surgical operative reports (not diagnostic needle, incisional biopsy). Include observations at surgery, tumor size, and extent of involvement of primary or metastatic sites. *Date of procedure, facility where procedure was performed, type of surgical procedure, detailed surgical findings, documentation of residual tumor, evidence of invasion of surrounding areas* **Example: 4/12/11 (Hosp xyz) right colon resection - Pt was found to have extensive disease in the pelvis (carcinomatosis) and resection was aborted**
DX Text - Pathology NAACCR Item #2570 Field Length = 1000	Enter text information from cytology and histopathology reports. *Date of specimen/resection, facility where specimen examined, pathology accession #, type of specimen, final diagnosis, comments, addenda, supplemental information, histology, behavior, size of tumor, tumor extension, lymph nodes (removed/biopsied), margins, some special histo studies* **Example: 2/5/11 (Hosp xyz) – Path Acc # - Rectum: Final Dx: adenoca, 2.5cm, ext. to pericolic fat. 1/22 lymph nodes + , margins neg, S100 stain is positive (melanoma, sarcoma)**
DX Text - Staging NAACCR Item #2600 Field Length = 1000	Enter **Details of Collaborative Stage** and other stage information not already entered in other text areas. Include specific information on Tumor Size, Extension of Primary Tumor, Metastatic Sites, etc. *Organs involved by direct extension, size of tumor, status of margins, sites of distant metastasis, special consideration for staging, overall stage, etc.* **Text for SSF documentation if not under Labs.** **Example: 2/15/11 - T2aN1a per path, distant mets in lungs, ER/PR neg, HER2 neg by IHC method**
RX Text - Surgery NAACCR Item #2610 Field Length = 1000	Enter text describing the surgical procedure(s) performed as part of 1st course treatment. *Treatment plan, date surgery performed, type of procedure, facility where surgery was performed* **Example: 2/15/11 (Hosp xyz) - rt breast mrm w/ax ln dissection**

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FCDS Data Quality Program - Policy

FCDS EDITS Metafile and EDITS PASS Requirement

FCDS transitioned from an Oracle-based edits program written by FCDS contractors to the National Standard EDITS Metafile in September 2010.

Standard EDITS include Field-Item, Inter-Item and Intra-Item Edits

- Edits validate codes, crosscheck relationships between data items (male with prostate cancer) and checks for blank fields.
- The FCDS EDITS Metafile was created for Florida, specifically to accommodate the reporting of historical cases among other FCDS special coding requirements
- FCDS has also included edits in the metafile for common abstracting errors identified through re-abstracting audits.

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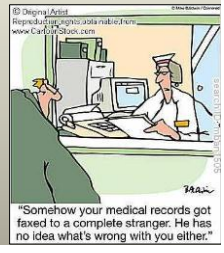
FCDS Data Quality Program - Policy

- Deadlines and Data Monitoring Policy and Procedures
- Confidentiality of Protected Health Information
- IT Security Policy and Procedures
- Patient Privacy and HIPAA
- No Paper Policy
- Other



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FCDS Data Quality Program - Procedures

- FCDS EDITS Metafile
- FCDS Correction / FORCE / Delete
- FCDS QC Review of Every 25th Record – Visual Editing
- Patient and Tumor Linkage and Consolidation Procedures
- FCDS Audit Findings Link Back to Education
- FCDS Data Use Link Back to Procedures

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FCDS Data Quality Program - EDITS

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Standard Sources for EDITS

- NCI SEER
- CDC NPCR
- ACOS COC
- Other States
- Collaborative Stage
- FCDS for Florida-Specific
- NAACCR EDITS Working Group

Florida Cancer Data System

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FCDS EDITS Check For Conditions

- Blank Field Checks – Single Item Edit
- Valid Code Checks – Single Item Edit
- Valid Date Checks – Single Item Edit
- Inter-Field Edits – Relationships Between Items
- Inter-Record Edits – Relationships Between Cases
- CS Edits – Core
- CS Edits – Staging
- CS Edits – SSFs
- Inter-Field CS and Other Item Edits (scope, surg)
- Link CS Stage and SSF Data to Treatment Plan

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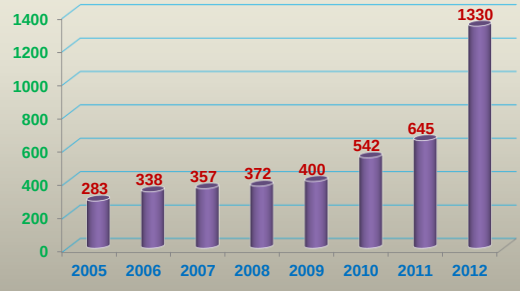
Number of Edits Over Time



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Total Edit Failures Over Time

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Category	Error #	Warning	Force	Description
Age Edits	81	N	Y	Invalid[illegible] Morphology for patient over age 5 based on ICD-O-3
Age Edits	82	N	Y	[illegible] site for patient under age 15
Class of Case Edits	149	N	N	Class of Case equal 38 (autopsy only) or 49 (DCO) and Vital Status not equal 0 (dead)
Class of Case Edits	150	N	N	Class of Case equal 5 and all Rx not equal 00 or 0
Collaborative Staging Edits	1	N	N	There is missing data (blank field) or invalid characters exist in the data for this data item
Collaborative Staging Edits	287	N	N	If CS Extension is 950, CS Lymph Nodes cannot = 000 and CS Mets at DX cannot be 00
Dx Confirmation Code Edits	219	N	Y	ICD-O-3 Behavior 2 requires Dx Confirmation 1, 2, or 4
Grade Code Edits	204	N	N	Grade must = 6 for this ICD-O-3 Morph code
Grade Code Edits	834	N	N	Grade should be coded to Implied Grade for this histology
Grade Code Edits	841	N	N	Grade [illegible]
Invalid Codes Edits	10	N	N	[illegible] not valid
Invalid Codes Edits	12	N	N	ICD-O-2 Morphology not valid
Invalid Codes Edits	102	N	N	Facility Code not valid
Probable Duplicate Edits	106	N	Y	Probable duplicate detected in master file
Sequence Edits	40	N	Y	Sequence greater than zero with IB Defined primary site, IB Defined Lymphoma, or IB Defined Leukemia
Sex/Site Edits	11	N	N	Sex not valid with Site
Site Code Edits	52	N	N	Site equals C50.* and Morphology equals 8521
Site/Morphology Edits	190	N	Y	ICD-O-3 Morphology not valid with Site or not reportable to FCDS
Site/Morphology Edits	207	N	Y	ICD-O-3 morphology cannot equal 8521/3 when site = C50.*. Verify morphology code
Therapy and Date Edits	268	N	Y	Breast, Prostate - Transplnt/Endocr Surg Rx Date must be less than 365 days after Diagnosis Date
Therapy and Date Edits	269	N	Y	Transplnt/Endocr Surg RX Date must be less than 240 days after Diagnosis [illegible]
Warnings	[illegible]	Y	N	[illegible] Other Rx is greater than 0 or less than 9
Warnings	359	Y	Y	WARNING: Please verify this case is reportable. Check Sect. I of the FCDS DAM for reportability guidelines
Warnings	989	Y	N	WARNING: NPI Number Invalid or assigned after last registry update

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FCDS and National EDITS – Coming Soon!

- Updates to SEER Site/Type Table
  - 2012 Hematopoitic and Lymphoid Neoplasm Site/Type
  - 2013 ICD-O-3 Updates – New Histology Codes and Site/Type
  - General Updates to Site/Type Combinations
- Complex Inter-Field EDITS
- More Treatment EDITS
- More CS Core EDITS
- More SSF EDITS
- New Clinical Edit Checks
  - NCCN/ASCO Guidelines
  - NCDB Submission Edits
  - RQRS (Rapid Quality Reporting System)
  - CP3R (Cancer Program Practice Profile Reports)

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Staying Current - FCDS EDITS

- Understand FCDS EDIT and what each is designed to do
- Review FCDS EDITS Messages – make them more clear
- Identify FCDS EDITS that are "FORCEABLE"
- Understand FCDS EDITS/CORRECTION/FORCE Process
- Understand FCDS FC/QC responsibilities and expectations
  - External FCDS EDITS Metafile to be used by Registrars
  - Internal FCDS EDITS Metafile used by FCDS
  - FCDS Metafile Excel Sheet documenting changes
- Registrar Interest in Learning How to Use Edit Writer

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Staying Current - FCDS EDITS

http://fcds.med.miami.edu/inc/downloads.shtml#fcdsdatafiles

What's New / Downloads

FCDS Data Files

- Independent Contractor List (comma separated text file) This list of independent contractors is provided as a courtesy and should not be considered a complete list (as the list is updated only twice per year). Additionally, the Florida Cancer Data System makes no recommendations about the individual's abilities or skills and takes no responsibility for the quality of their work. Inclusion on this list is by request of the independent contractor.
- Zip code, Fips County, Florida City Name Verification file (comma separated text file) This can be used by abstracting vendors to lower the number of county/zip/city errors for abstracts submitted to FCDS. The USPS Zip/County/Address Lookup Page has the very latest zipcodes.
- Current list of FCDS Edit messages as a comma separated file. This link downloads the latest FCDS Edit Messages with Force/Warning flags. Sorted by category/edit#
- FCDS/NAACCR EDITs Metafile - Updated metafiles will be posted here when there are corrections/changes, so check this page for new versions:
  - 12.2C Metafile, posted 09/6/2012 1:25pm, Metafile changes

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Staying Current - FCDS EDITS Metafile

Metafile Version	Modification Date	Edit	Edit Name	Comments
				yellow = new and changed edits
12.2C	09/04/12	1335	CS Extension, CS Tumor Size, Site, Hist ICDO3 (CS)	Edit modified to check CS SSF 3 (as well as CS Extension) for Prostate schema: if CS Extension = 950 and CS Site-Specific Factor 3 = 950, then CS Tumor Size must = 000.
12.2C	09/04/12	1337	CS Extension, SSF 1, MelanomaSkin Schema (FCDS)	Added: If CS Extension = 950, then CS Site-Specific Factor 1 must = 000.
12.2C	09/04/12	1336	CS Items, Type Reporting Source-DCO (FCDS)	- Added "CS Site-Specific Factor10: 988 or 999" to the edit description; edit logic is already correct - For SSF 1, added 987 to codes allowed for Bladder, KidneyRenalPelvis and Urethra - For SSF 2, added code 987 to codes allowed for SkinEyelid
12.2C	09/04/12	979 980	CS Lymph Nodes, MyelomaPlasmaCellDisorder (CS)	- Added to both edit sets; was accidentally left out of v12.2B edit sets
12.2C	09/04/12	1338	CS Lymph Nodes, Nodes Pos, MerkelCell Schemas(CS)	- Added to both edit sets
12.2C	09/04/12	1339	CS SSF 16, MerkelCell Schemas (CS)	Sequence of edit logic changed in condition #2: instead of checking if CS SSF 16 = 998, then Scope of Reg LN Surg must = 0 and regional nodes positive must = 98, the edit now checks if Scope of Regional LN Surg = 0, then CS SSF 16 must = 998 or 999 and regional nodes positive must = 98.
12.2C	09/04/12	1340	CS SSF 17, MerkelCell Schemas (CS)	Sequence of edit logic changed in condition #3 and additional codes added when checking CS SSF 17 for codes indicating nodes not assessed pathologically: instead of checking if CS SSF 17 = 030, 060, 090, then Scope of Reg LN Surg must = 0, the edit now checks if Scope of Regional LN Surg = 0, then CS SSF 17 must = 000, 020, 030, 050, 060, 080, 090, 999.

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Master List(s) – FCDS EDITS

Category	Error Code	Warning Flag	Force Flag	Description
Age Edits	81	N	Y	Invalid Site and Morphology for patient over age 5 based on ICD-O-2
Age Edits	82	N	Y	Invalid Site for patient under age 15
Class of Case Edits	149	N	N	Class of Case equal 38 (autopsy only) or 49 (DCO) and Vital Status not equal 0 (dead)
Class of Case Edits	520	N	N	If Class of Case equal 38 (autopsy only), then Date of Diagnosis and Date of Last Contact must be the same date.
Collaborative Staging Edits	287	N	N	If CS Extension is 950, CS Lymph Nodes cannot = 000 and CS Mets at DX cannot be 00
Collaborative Staging Edits	288	N	N	If CS schema is not KaposiSarcoma, MelanomaSkin, Conjunctiva, MelanomaConjunctiva, MelanomaChoroid, Melanomairis, MelanomaCiliaryBody, or LymphomaOcularAdnexa: If CS Extension = 950, then CS Tumor Size must = 000.
Grade Code Edits	1263	N	N	Unknown Primary Site (C809), Grade must = 9
Grade Code Edits	1300	N	N	Grade must = 5, 8, or 9 for this ICD-O-3 Morph code
Invalid Codes Edits	10	N	N	Site not valid
Invalid Codes Edits	14	N	N	Abstractor code not valid
Morphology Code Edits	839	N	Y	Histology is not valid
Morphology Code Edits	840	N	Y	Invalid Histology for in situ
Out of Range Edits	19	N	N	County Residence Current out of range (11-77, 88 or 90) or not numeric
Out of Range Edits	22	N	N	Hispanic Origin is out of range (0 through 7 or 9)
Probable Duplicate Edits	106	N	Y	Probable duplicate detected in master file
Sequence Edits	40	N	Y	Sequence greater than zero with Ill-Defined primary site, Ill-Defined Lymphoma, or Ill-Defined Leukemia
Sequence Edits	63	N	N	If Date of 1st Contact is less than 1981, Sequence Number--Hospital cannot = 00 or 60
Therapy and Date Edits	113	N	N	If Surgery Primary Site = 00 and Scope Reg LN Surg = 0 and Surg Oth/Reg/Dist = 0 then Surg Date must equal 00000000
Therapy and Date Edits	119	N	N	If RX Summ--Chemo = 00, 82, or 85-87 (chemo not given) then RX Date--Chemo must be blank and RX Date--Chemo Flag field must = 11 (no chemo).
Warnings	60	Y	N	WARNING: Other Rx is greater than 0 or less than 9
Warnings	359	Y	N	WARNING: Please verify this case is reportable. Check Sect. I of the FCDS DAM for reportability guidelines

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Corrections/Deletions/FORCES

All Cases Processed	Receipt Date 2010	% of Total Cases
Good	137,955	94.6%
Corrected	4,257	2.9%
Forced	2,466	1.6%
Deleted	1,124	0.7%
Total Processed	145,802	100%

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Corrections/Deletions/FORCES

Cases Processed	Receipt Date 2011	% of Total Cases
Good	165,317	94.5%
Corrected	4,856	2.8%
Forced	3,274	1.9%
Deleted	1,476	0.8%
Total Processed	174,923	100%

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FCDS Data Quality Program – Every 25th

FCDS QC Visual Review - Every 25th Record

- 2012 Added All Male Breast and All Pediatric Neoplasms to QC Review

GOAL: Evaluate whether or not the case makes sense as coded or is something missing or unusual that edits would not catch. Does the case make sense as coded or is something missing or "off" with case as coded.

By selecting one of every 25th records received plus male breast and all pediatric cases, FCDS visually edits at least 5% of the total cases submitted each year. Other cases visually edited are cases being evaluated for FORCES, Corrections, Special Studies, and During Data Use (up to 10% of annual cases).

- The QC Abstract Review Process is a 3-step process - fully automated.
  - **Step 1: initial review**
  - **Step 2: feedback to/from the registrar with opportunity to defend coding**
  - **Step 3: third party mediation assesses the first reviewer's findings, the facility's comments, any recommended corrections, or feedback and come to a final determination on the case – the mediators decision is final**
- **Records with discrepant data must be resolved by the reporting facility.**
- **"Agree", "OK", "Done" are NOT Acceptable Responses to Inquiries**

Visual Review – The Panoramic View

- Are there many blank spaces?
- Is code 9 (unknown) used frequently?
- Are there other numeric red flags (.8, 88, 8)?
- Are all dates in logical order?
- Are text fields significantly different from coded field translations?
- Is treatment appropriate for site and stage?
- Is there logical progression from stage at initial diagnosis to recurrence and recurrence sites?
- Does the abstract tell a complete story?

Visual Review – Demographic Items

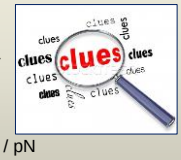
- Surname – Spanish origin
- Race – Surname – Place of birth
- Area code – County
- Date of birth – Date of diagnosis
- Sex – Name
- Sex – Primary site
- Age – Occupation
- Age – Marital status
- Age – Primary site and histology
- Address – Place of diagnosis
- City -- County

Visual Review – Diagnosis Items

- Primary site code – Text
- Histology code – Text
- Site – Laterality – Histology
- Behavior – Diagnostic confirmation
- Dx confirmation – Histology > 8000
- Are dates in logical sequence?
- Is Dx date the earliest documented?
- Class of case – Facility referred to/from
- Dx date – Place of diagnosis
- Site – Type of admission
- Sequence no. – Other primaries

Visual Review – Staging Items

- Stage – Primary site
- CS codes – Procedures text
- CS Extension – Summary stage – cT / pT
- CS Extension – SSFs (by site)
- Age – Pediatric stage
- CS Lymph Nodes – Summary stage – cN / pN
- CS Lymph Nodes – SSFs (by site)
- Tumor size > 100
- Nodes pos/exam – Surgery
- CS Mets at Dx – Summary stage – cM / pM
- Staging basis – Dates of treatment



Visual Review – Treatment Items

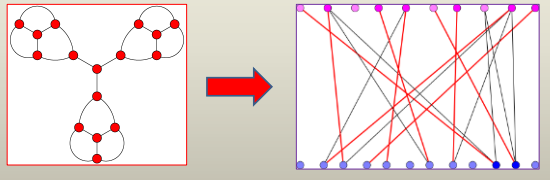
- Planned first course listed?
- Treatment – Primary site – Stage
- Treatment code – Procedure name
- Treatment – Facility referred from/to
- Surgery – Operative findings text
- Surgery – Pathology text
- Date 1st surg – Date most definitive surg
- Date most definitive surg – Date surg discharge
- Surg prim site – Margins
- Surg prim site – Scope reg LN
- Surg prim site – Reason no surg

Visual Review – Treatment Items

- Surgery – Radiation – RT/surgery seq
- Date RT start – Date RT end
- Location of RT – Facility referred from/to
- RT treatment volume – Reason no RT
- RT treatment volume – Boost volume
- Systemic tx – Primary site
- Systemic tx date – Chemo – Hormone – Immunotherapy
- Systemic tx date – Date most definitive surgery – Systemic/surgery sequence
- Hematologic Transplant & Endocrine Procedure – Primary site
- RT treatment volume – Palliative care

45

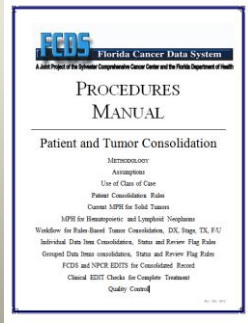
Patient and Tumor Match, Link & Consolidate



BEST INFORMATION AVAILABLE FROM ALL SOURCES

46

Patient and Tumor Match, Link & Consolidate



47

FCDS Data Quality Program - Audits

- Introduction to FCDS Audits – Topic Selection / Protocol
- Audits to Assess Completeness
- Audits to Assess Timeliness
- Audits to Assess Accuracy
- Reconciliation Process
- External Audits
- Other

FCDS Data Quality Program - Audits

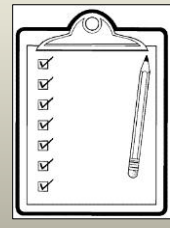
- Annual audits
  - Completeness
  - Timeliness
  - Data Quality/Validation
- Targeted audits
  - Identify extent of specific problems
  - Identify individual data collector training needs
  - Review and improve data quality in problem areas
- Random audits
  - Validate central registry data for research purposes
  - Identify unknown problem areas
  - Identify general data collector training needs
  - Review and improve data quality in unknown areas

FCDS Data Quality Program - Audits

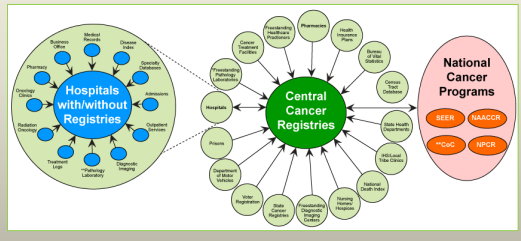
- Annual audits
  - Data Validation and Feedback
  - Includes All Florida Reporting Facilities
  - Contractual Obligation – DOH and NPCR
  - Re-Abstracting/Validation Audits on a 5-year cycle
- Targeted audits
  - High risk – high volume
  - Major sites – problem sites
  - New staff
  - New software/conversions
  - High volume
  - History of problems
- Random audits
  - All facilities
  - All primary sites

FCDS Data Quality Program - Audits

- **Study/Audit Timeline**
- **Protocol Template**
  - Introduction
  - Purpose
  - Description of Study
    - Sample size
    - Study population
  - Audit Notification
  - Audit Procedures
  - Resolution Procedures
  - Analysis plan
  - Feedback plan
  - Recommendations
- **Protocol Review**



Audits to Assess Completeness



The NPCR–AERRO scope diagram shown above is a simple flow diagram that identifies hospital and central registry data sources in a ranked order, based on the quantity of useful data that are available and reported to the central cancer registry.

Audits to Assess Completeness

The extent to which all required cases have been reported to FCDS. FCDS file completeness is assessed using:

- ACHA (covers 100% audit of all In-Patient and Out-Patient Visits)
- FAPTP – Florida Association of Pediatric Tumor Programs
- Breast Cancer Early Detection Program Match
- Interstate Data Exchange
- Annual Death Clearance
- Field Casefinding Audits
- E-Path Matching
- Other Linkages
- NDI

NPCR Requires FCDS to be 90% complete 12 months after close of dx year – from all report sources

NPCR Requires FCDS to be 95% complete 24 months after close of dx year – from all report sources

Audits to Assess Completeness

- Patient and Tumor Consolidation
  - (aka: merging the "best" data from all available sources)
  - Electronic edits, Visual Editing, Patient and Tumor Matching
  - Comparison of individual data and data items
  - Records received are checked for duplicate reporting
  - 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

Audits to Assess Completeness

AHCA Clearance and Casefinding Audit

- AHCA is the Agency for Health Care Administration with a primary function of tracking ALL patient encounters (diagnosis, treatment, billing, etc.) for nearly all healthcare facilities in the state of Florida
- ANNUAL Match the FCDS Master File to the Florida AHCA files for both inpatient and outpatient/ambulatory patient encounters. All Facilities.
- FCDS provides each reporting facility with a list of Unmatched AHCA Cases (cases that appear in the AHCA files but have no matching record in the FCDS Master File) and available in FCDS IDEA on the FCDS website.
- Facilities must explain why they did not report the case – or must immediately abstract and submit the case to FCDS as a "late report".
- When missed cases are abstracted and submitted, they are classified as a "missed case" found as a result of the audit and counted as a "late report".

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Audits to Assess Completeness

Death Clearance and Casefinding Audit

- Many registrars do not recognize Annual Death Clearance as a casefinding audit, but it is. The Florida Bureau of Vital Statistics tracks every birth and death in the state of Florida and has for many years.
- FCDS Conducts an ANNUAL matching of the entire FCDS Master File (3.5 million records) to the annual Vital Statistics Mortality File
- Any "cancer-related" Florida deaths without a matched record in the FCDS Master File are followed back to the hospital or physician authorizing the VS report to determine why the facility/physician did not submit the case.
- Facilities must explain why they did not report the case – or must immediately abstract and submit the case to FCDS as a "late report".
- When missed cases are abstracted and submitted, they are classified as a "missed case" found as a result of the audit and counted as a "late report".

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Audits to Assess Completeness

FAPTP Clearance and Casefinding Audit

- Many registrars do not recognize this as an audit, but it is. The Florida Association of Pediatric Tumor Programs (FAPTP) captures data on pediatric tumors diagnosed and/or treated within their consortium of hospitals and cancer programs.
- FCDS Conducts an ANNUAL matching of the entire FCDS Masterfile (3.5 million records) to the annual FAPTP File
- Any records found not to match the FCDS Masterfile but having been seen in the facility are followed back to determine why they did not send the case.
- Facilities must explain why they did not report the case – or must immediately abstract and submit the case to FCDS as a "late report".
- When missed cases are abstracted and submitted, they are classified as a "missed case" found as a result of the audit and counted as a "late report".

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Audits to Assess Completeness

On-Site Casefinding Audits

- QC staff will periodically perform on-site review of casefinding procedures and casefinding sources within each facility. (Medical Records, e-path, clinics, other).
- If any case is found to meet the cancer reporting requirements outlined in Section I, the case must be abstracted and reported to FCDS.
- For any case found that does not meet the cancer reporting requirements outlined in Section I, an explanation must be submitted to FCDS detailing the reason it will not be reported.
- Facilities must explain why they did not report the case – or must immediately abstract and submit the case to FCDS as a "late report".
- When missed cases are abstracted and submitted, they are classified as a "missed case" found as a result of the audit and counted as a "late report".
- FCDS will add matching and follow-back of e-path records to facility submissions in the future as an annual routine Casefinding Audit and will also be used for Data Validation comparing text-to-code assignments against the original e-path report.

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Audits to Assess Timeliness

Timeliness is determined by measuring how long it takes from the time a patient walks through the door of your facility for a diagnosis to be made, treatment plan to be created and initiated, the case is abstracted, the case is uploaded to FCDS without error and more.

- Standard Set by NAACCR, CDC/NPCR, ACoS/CoC, FCDS:
  - 95% cases submitted within 6 months from date of service.
  - 100% of cases must be reported by June 30th.
- FCDS Annual June 30th Deadline
- FCDS Quarterly Status Reports
- Once-A-Year Submissions DO NOT Meet Reporting Requirements
  - Monthly Reporting is preferred so you stay current
  - Quarterly Reporting for Facilities with >500 cases/year

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Audits to Assess Accuracy/Data Quality

The extent to which the data submitted has been correctly and consistently coded and reflects the clinical, diagnostic, descriptive, decisions for treatment planning, or other information contained in the medical record.

- FCDS Abstractor Code Required for Each Abstractor
- FCDS Abstractor Code Annual Renewal
- Policy for Data Submission
- Standard FCDS EDITS Metafile
- Text Documentation Requirements
- Case Corrections / Forces (Edit Override)
- QC Visual Editing – A 3-step Process
- Audits for Completeness
- Audits for Accuracy
- External Audits
- Data Use

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Audits to Assess Accuracy/Data Quality

FCDS On-Site Validation/Re-abstracting Audits

- The FCDS Quality Control staff and/or outside contract agents working on behalf of FCDS perform on-site or remote access source record review of abstracting and coding by re-abstracting cases from original source paper or electronic medical records for cases previously submitted to FCDS.
- Re-abstracting/Validation Audits assess the consistency in interpretation, instruction and use of standard data definitions, coding rules and guidelines, reference resources, and policies and procedures; and serve to identify areas that may require further education and training
- Reconciliation of Re-abstracting Audit Inconsistencies between original data and audited data is an Important Component: Key data items are evaluated and any discrepancy noted between the auditor's findings and the original abstract findings are returned to the facility for reconciliation.
- NEW for 2012 – EMR Direct Access to Medical Records for audit and/or e-post of key electronic reports on FCDS IDEA (PDF, txt, doc, other formats) instead of on-site auditing of medical records for 2010 diagnosis.

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External Audits

CDC NPCR Audits (Casefinding/Re-Abstracting/Consolidation)

- The CDC NPCR staff and/or outside contract agents working on behalf of NPCR perform on-site and/or remote review of FCDS Policy and Procedures Manuals, routine operations, standard FCDS EDITS, QC Review, Audits, and Record Consolidation operations and outcomes.
- The CDC NPCR staff and/or outside contract agents working on behalf of NPCR perform on-site and/or remote audits of sources records as well as consolidated FCDS Master File records by reviewing paper and/or electronic medical records, FCDS Master File records, and other available source records on cases previously submitted to FCDS.
- Reconciliation of differences between original data and audited data is an important component: Key data items are evaluated and any discrepancy noted between the auditor's findings and the original abstract findings or consolidation findings are returned to FCDS for reconciliation.
- New for 2012 – Consolidation Outcomes Audit and Visual Editing Audit

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FCDS Data Quality Program - Reports

- FCDS Upload EDIT Discrepancy Journal
- FCDS Quarterly Status Report
- FCDS Data Quality Indicator Report
- FCDS Re-Abstracting Study Report
- NPCR Data Quality Indicator Reports
- NAACCR Certification

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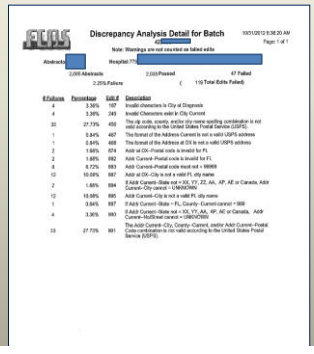
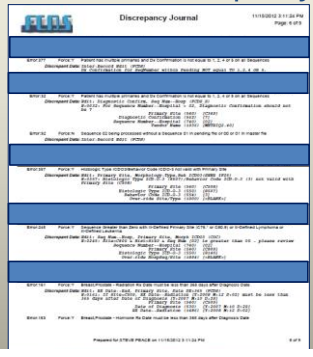
Discrepancy Analysis Detail For Batch


Discrepancy Analysis Detail for Batch

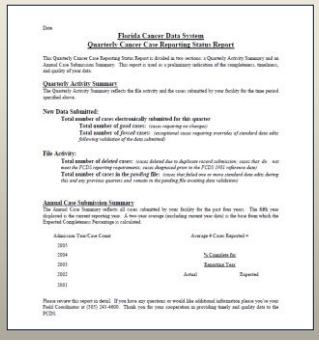
64

FCDS Edit Check Discrepancy Journal


Discrepancy Journal

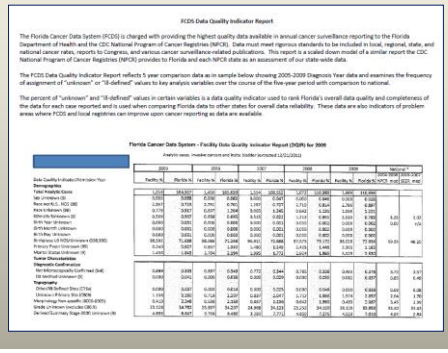
65

FCDS Quarterly Status Report


Florida Cancer Data System
Quarterly Cancer Case Reporting Status Report

66

FCDS Data Quality Indicator Report


FCDS Data Quality Indicator Report

FCDS Re-Abstracting Audit Report

- Major Difference
  - Affects incidence counts
  - Affects research
  - Examples: diagnosis year, primary site, sex
- Minor Difference
  - Does not affect incidence counts
  - Examples: quadrant of breast, type of resection
- Unknown-to-Known
  - Valid data found but initially coded as unknown
  - Difference depends on data item

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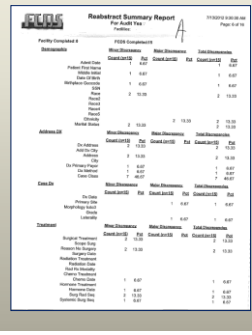
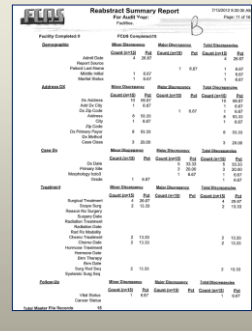
FCDS Re-Abstracting Audit Report





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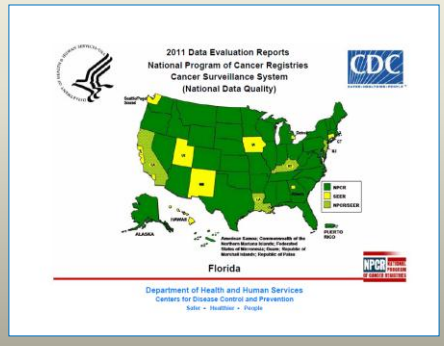
NPCR Data Quality Reports



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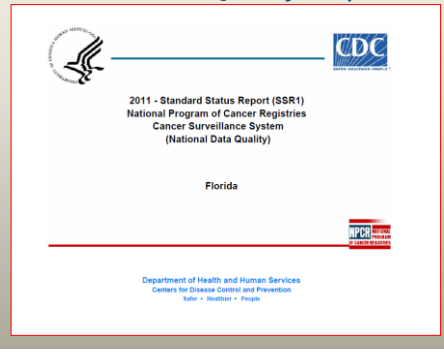
NPCR Data Quality Reports



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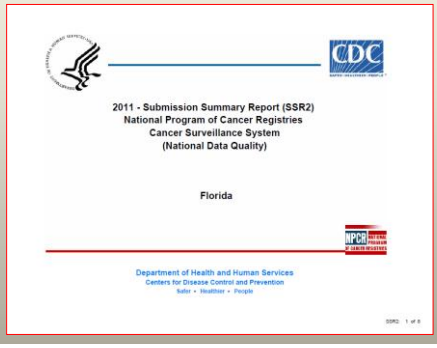
NPCR Data Quality Reports



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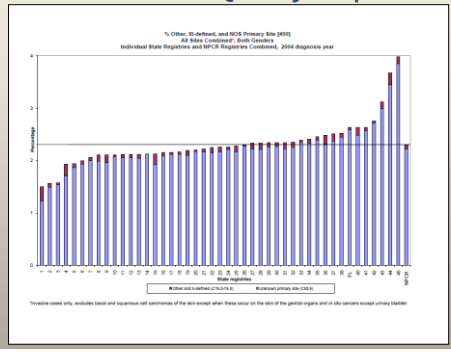
NPCR Data Quality Reports



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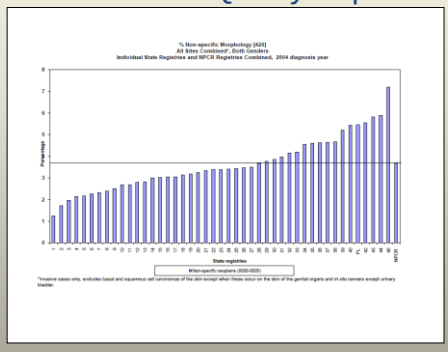
NPCR Data Quality Reports



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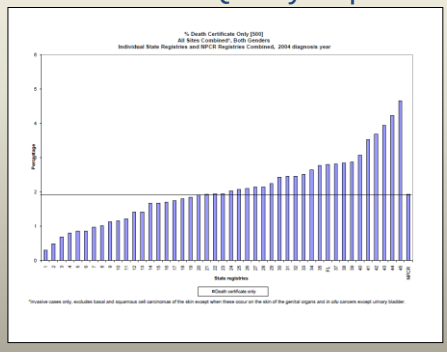
NPCR Data Quality Reports



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NAACCR Certification

NAACCR 2009 GOLD CERTIFICATION

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Other – Reinforcement

- ✓Monitor Compliance with Feedback to Registrar and Administration
- ✓Data Quality and Timeliness Reports to Administration
- ✓Targeted Education and Training Programs
  - FCDS Annual Conference
  - FCDS Annual Series of Webcasts
    - 6-8 per year or as needed
    - Recorded and archived
  - FCDS On-Line Abstractor Training Course
  - Published Resources for Registrars
  - Monthly NAACCR Educational Webcast Series at 7 Locations in FL

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Other – Incentives and Rewards

- Jean Byers Award including Publication of Name in Register
- Individual Abstractor Recognition Certificates
- Other Recognition – Future of Rewards

FCDS DATA QUALITY AND EDUCATION AND TRAINING

FCDS Education and Training

- **New Registrar Recruitment**
- **Instruction:** FCDS/National Coding Rules and Guidelines
- **Instruction:** FCDS/National Policy/Procedures
- **Re-Instruction:** Existing Rules/Procedures – **Correct Problems**
- **Instruction:** Changes To / New Rules/Procedures
- **Continuing Education – Increase Knowledge Base**
- **Retention of Qualified Staff**

FCDS Education and Training

- On-Line Abstracting Course for New Registrars
- Obtaining an FCDS Abstractor Code
- 2-Day FCDS Annual Conference
- 6-8 FCDS Annual Webcast Series
- 12 NAACCR Hosted Annual Webinar Series
- Ad Hoc Webcasts for New Programs/Policy/Procedure/Other
- Monthly In-Services – Cancer Registry Principles & Practices
- Monthly EDITS In-Services – Review New/Change FCDS EDITS
- Personalized Instruction

FCDS Education and Training

EDUCATIONAL RESOURCES FOR REGISTRARS – updated Sept 2012

Reference Book/Manual for Abstracting	Web Address For Source	Notes
2012 FCDS (Florida Cancer Data System) Data Acquisition Manual	http://www.fcds.med.miami.edu/inc/DAM.shtml	Details cancer data reporting guidelines and casefinding mechanisms for identifying reportable cancers.
2012 CoC FORDS Manual (Facility Oncology Data Standards)	http://www.facs.org/cancer/coc/standards.html	FORDS errata is issued quarterly and posted on the website.
2007 MPH Rules - Solid Tumors, rev Aug 24, 2012	http://www.seer.cancer.gov/tools/mphrules/index.html	On the home page click on "Information for Cancer Registrars", MP/H Rules
2012 MPH Rules - Heme/Lymph Neoplasms and Interactive Heme/Lymph Database	http://seer.cancer.gov/seertools/hemelymph/	On the home page click on "Information for Cancer Registrars", Hematopoietic & Lymphoid Neoplasm Project
ICD-O-3 Coding Materials	http://www.seer.cancer.gov/icd-o-3/index.html	On the home page click "Data Collection Tools", Errata and Clarifications".
Collaborative Stage Data Collection System	http://www.cancerstaging.org/cstage	On the home page click the link "news" to see if there are updates.
SEER *Rx - Interactive Drug Database	http://seer.cancer.gov/seertools/seerrx/	A one-step lookup for coding oncology drug and regimen treatment categories in cancer registries
AJCC Staging Manual 7th Edition (plus errata)	http://www.springer.com/medicine	Springer (publisher) ISBN: 978-0-387-88440-0
Education and Training Materials	**Web Address For Training Materials**	**Notes**
FCDS Education & Training On-Line Abstractor Training Course and Recorded Webcasts/Teleconferences and Registration for FCDS-sponsored Educational Events	http://www.fcds.med.miami.edu/inc/training.shtml and http://www.fcds.med.miami.edu/inc/teleconferences.shtml	On-Line Abstractor Training Course, Recorded FCDS Educational Webcasts, Annual Meeting Presentations, Special Announcements, and more
SEER Cancer Registrar Training Modules	http://www.seer.cancer.gov/training/index.html	Self Instruction Modules on many abstracting topics including Collaborative Staging and Multiple Primary and Histology Coding Rules.
CoC/AJCC Online Education	http://www.ex2.com/partners.com/users/acs	On-Demand Webinars, CLP Education
NAACCR Webinars	http://www.naaccr.webex.com/mw0306lb/mywebex/	FCDS sponsors 6 host locations across Florida for the monthly educational webinars
Brain Tumor Registry Reporting Training Materials	http://www.cdc.gov/cancer/npcr/training	This includes a Power Point presentation on Benign Brain and CNS Tumors along with speaker notes. It also has exercises with answers provided.
Newsletters	**Web Address**	**Notes**
FCDS Monthly Memo	http://www.fcds.med.miami.edu/inc/newsletters.shtml	Florida Cancer Data System's monthly memo written especially for registrars. (used as a source for updates/replacement pages to manuals)
FCDS Register (Quarterly Newsletter)	http://www.fcds.med.miami.edu/inc/newsletters.shtml	Florida Cancer Data System's newsletter
COC Flash	http://www.facs.org/cancer/cocflash.html	Commission on Cancer's newsletter
Online Help For Abstracting Questions		
Ask a SEER Registrar/SEER Inquiry System	http://www.seer.cancer.gov/seerinquiry/index.php	Type in a topic, search, and it will show you similar questions that other registrars have submitted along with the answers.
CAnswer Forum (Inquiry and Response System)	http://cancerbulletin.facs.org/forums/	Type in a topic, search, and it will show you similar questions that other registrars have submitted along with the answers.

V:\Education 2012\ResourcesforRegistrarsSept2012.docx 2012/09/10

FCDS Education and Training

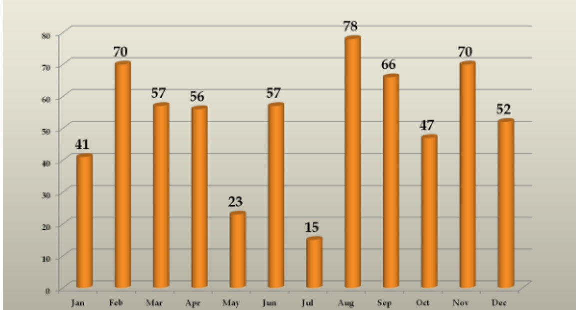
EDUCATIONAL RESOURCES FOR REGISTRARS – updated Sept 2012

2012 Resources and References for Registrars	
2012 Casefinding/Reportable List	• 2012 FCDS Data Acquisition Manual (FCDS DAM)
2012 Coding Manual and Instructions	• 2012 FCDS Data Acquisition Manual (FCDS DAM) • 2012 CoC Facility Oncology Data Standards (CoC FORDS)
2007 MPH Rules - Solid Tumors	• 2007 MPH Rules – Solid Tumors
2012 MPH Rules - Heme/Lymph Neoplasms	• 2012 MPH Rules and Database – Heme/Lymph Neoplasms
ICD-O-3 Primary Site/Histology Codes	• ICD-O-3 (except for Heme/Lymph Neoplasms – codes 9590-9989) • 2012 MPH Rules - Heme/Lymph Neoplasms for all codes 9590-9992
Collaborative Stage Data Collection System, v2	• Part I – Section 1 – General Instructions • Part I – Section 2 – Lab Tests, Tumor Markers, and SSF Notes • Part II – Site Specific Coding Schema o Natural Order o Alphabetical Order o Schema Groups
Free-Standing Software Applications	• 2012 Heme/Lymph Rules and Database • SEER*Rx
Internet Access to Online Resources	• http://fcds.med.miami.edu/inc/whatsnew • http://www.facs.org/cancer • http://www.cancerstaging.org/cstage • http://seer.cancer.gov/tools/mphrules • http://seer.cancer.gov/tools/seerrx • http://seer.cancer.gov/tools/heme • http://www.ncra-usa.org • http://www.naaccr.org • http://who.int/classifications/icd/adaptations/oncology/en

Tracking Events

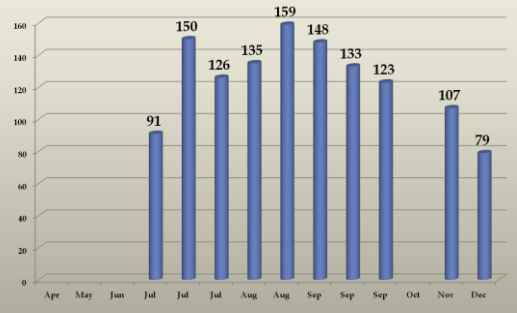
NCRA #	Date	Name of Event	Sponsor	Type	Participants	CEUs
2011-082	1/5/12	Collecting Cancer Data: Pancreas	NAACCR	webinar	57	3
n/a	1/18/12	FCDS Inservice: Quality Control in Central Registry	FCDS	in-service	27	0
2011-172	1/19/12	Brain and CNS Tumors - 2012 MPH Rules/CSv02.03/Site Specific Factors and Treatment	FCDS	webcast	153	2
2011-088	2/2/12	Collecting Cancer Data: Hematopoietic	NAACCR	webinar	66	3
n/a	2/15/12	FCDS Inservice: Record Linkage	FCDS	in-service	19	0
2011-173	2/16/12	Head and Neck Cancers - MPH Rules/CSv02.03/Site Specific Factors and Treatment	FCDS	webcast	151	2
n/a	2/23/12	FCDS Inservice: Record Consolidation	FCDS	in-service	25	0
2011-086	3/1/2012	Abstracting and Coding Boot Camp: Cancer Case Scenarios	NAACCR	webinar	76	3
n/a	3/14/2012 - 3/18/2012	NCCN Annual Conference, Fort Lauderdale, FL	NCCN	in-person	0	n/a
n/a	3/17/2012	CTR Examination Date	NCRA	in-person	NEW CTRs	0
2011-087	4/5/2012	Collecting Cancer Data: Lower Digestive System	NAACCR	webinar	66	3
2012-023	4/16/2012 - 4/21/2012	NCRA Annual Conference, Washington, DC	NCRA	in-person	2	19.5
n/a	4/19/2012 - 4/21/2012	FLASCO Spring Session, Tampa, FL	FLASCO	in-person	0	n/a
2011-091	5/3/2012	Collecting Cancer Data: Lung	NAACCR	webinar	55	3
2011-068	6/3/2012 - 6/9/2012	NAACCR Annual Conference, Portland, OR	NAACCR	in-person	7	18.5
2011-089	6/14/2012	Using and Interpreting Data Quality Indicators	NAACCR	webinar	53	3

2010 NAACCR Webcasts = 632ppts



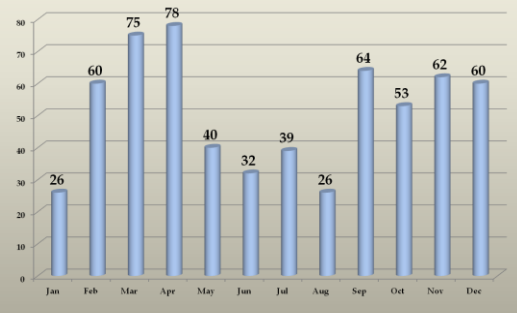
85

2010 FCDS Webcasts = 1251ppts



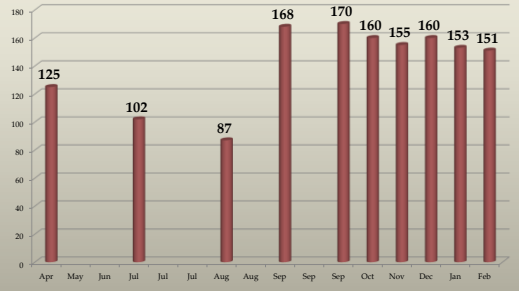
86

2011 NAACCR Webcasts = 615ppts



87

2011 FCDS Webcasts = 1431ppts



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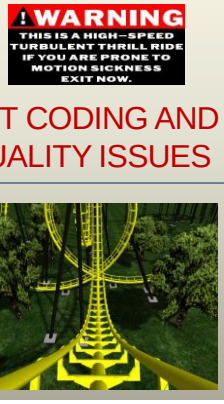
Results

FCDS has achieved variable results depending on combination of one or more of the following:

- Topic of Interest
- Availability of Program
- Availability of Participants
- Method of Presentation
  - In-person Meeting
  - Live Broadcast (webinar/webcast)
  - Recorded Webinar/Webcast
  - Web-Enabled Self-Instruction
  - Telephone Assistance
  - Other Personalized Instruction



CURRENT CODING AND DATA QUALITY ISSUES

90

- FCDS has been correcting many more sex coding errors than we have had to correct in many, many years. Why??
- FCDS routinely checks Male Breast for Sex Coding Errors
- All Other Sex Coding Errors we find are incidental.
- PLEASE double check that you have coded SEX correctly.

Code	Description
1	Male
2	Female
3	Other (Hermaphrodite)
4	Transsexual
9	Unknown/not stated

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Urinary System MPH Rules

Rule M5 An **invasive** tumor **following** a **non-invasive or in situ** tumor more than 60 days after diagnosis is a multiple primary. **
Note 1: The purpose of this rule is to ensure that the case is counted as an incident (invasive) case when incidence data are analyzed.
Note 2: Abstract as multiple primaries even if the medical record/physician states it is recurrence or progression of disease

Rule M6 Bladder tumors with any **combination** of the following histologies: **papillary carcinoma** (8050), **transitional cell carcinoma** (8120-8124), **or papillary transitional cell carcinoma** (8130-8131), are a single primary. *

Rule M7 Tumors diagnosed **more than three (3)** years apart are multiple primaries. **

Rule M8 Urothelial tumors in two or more of the following sites are a single primary* (See Table 1)
- Renal pelvis (C659)
- Ureter(C669)
- Bladder (C670-C679)
- Urethra /prostatic urethra (C680)

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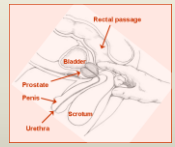
Prostate - Clinical

- Use Core CS Data Items
  - CS Tumor Size
  - CS Ext
  - CS TS/Ext Eval
  - CS LN
  - CS LN Eval
  - CS Mets
  - CS Mets Eval



- Question: Is the term "induration" still considered apparent/involvement for clinical extension for prostate ca?
- Answer: Note 3: Clinically apparent and inapparent tumor: A clinically inapparent tumor is one that is neither palpable nor reliably visible by imaging. A clinically apparent tumor is palpable or visible by imaging. If a clinician documents a "tumor", "mass", or "nodule", this can be inferred as apparent. Do not infer inapparent or apparent tumor based on the registrar's interpretation of other terms in the digital rectal examination (DRE) or imaging reports. A physician assignment of cT1 or cT2 is also a clear statement of inapparent or apparent respectively. Code to 300 (which maps to T2 NOS) in the absence of a clear physician's statement of inapparent or apparent

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Prostate - Pathologic

- SSF 3 – Path Extension – MUST HAVE PROSTECTOMY for coding !!!
- Note 1: **Include information from prostatectomy and autopsy in this field and not in CS Extension - Clinical Extension**.
  - Only use histologic information from prostatectomy, including simple prostatectomy with negative margins, and autopsy in this field.
  - Information from biopsy of extraprostatic sites is coded in CS Extension - Clinical Extension;
  - Information from needle core biopsy of prostate is coded in CS SSF14.
- Note 2: **Code 970 if there is no prostatectomy performed** within the first course of treatment.
- Note 3: Limit information in this field to first course of treatment in the absence of disease progression.
- Note 4: AJCC considers "in situ carcinoma of prostate gland" an impossible diagnosis. Any case so coded is mapped to TX for AJCC stage and in situ Summary Stage.

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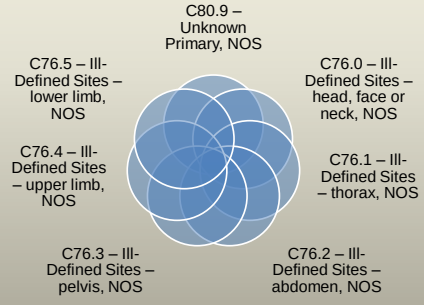
Unknown Primary/Ill-Defined Site



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Unknown Primary/Ill-Defined Site

- **Rule H. Use the topography code provided when a topographic site is not stated in the diagnosis. This topography code should be disregarded if the tumor is known to arise at another site.**

Head and Neck Equivalent Terms, Definitions, Charts, Tables and Illustrations
C000-C148, C300-C329
(Excludes lymphoma and leukemia – M-9590 – 9989 and Kaposi sarcoma M9140)

When the point of origin **cannot be determined**, use a topography code for overlapping sites:
- C02.8 Overlapping lesion of tongue
- C08.8 Overlapping lesion of major salivary glands
- C14.8 Overlapping lesion of lip, oral cavity, and pharynx.

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Unknown Primary/Ill-Defined Site

Site Title	Site Code	Histology Title	Histology Codes
Skin, Arm	C44.6	Carcinoma, Melanoma, Merkel Cell, Mycosis Fungoides, Cutaneous T-Cell Lymphoma of Arm	8010 8720-8970 8747 9700 9709
Soft Tissue, Arm	C49.1	Sarcoma	8800-8921
Peripheral Nerve, Arm	C47.1	Sarcoma	8800-8921
Bone, Arm	C40.3	Sarcoma (osteo)	9180-9194
Lymph Nodes, Arm	C77.3	Lymphoid Neoplasms	See Heme DB

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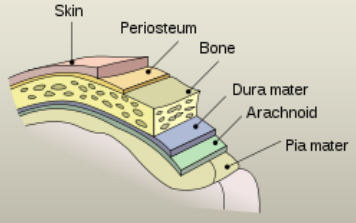
Unknown Primary/Ill-Defined Site



Meningioma (C70._) – (intra)cranial meninges, spinal meninges, NOS

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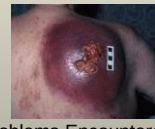
Melanoma Skin

- 3 KEY FACTORS FOR STAGING OF MELANOMA SKIN
  - Measured Thickness or Breslow Depth of Invasion
  - Presence or Absence of Ulceration
  - Primary Tumor Mitotic Count or Rate
- All are in the SSFs



- Measured Thickness
- 000 not a valid thickness – code 999
- Ulceration – Discussion
- Mitotic Count/Rate – Discussion and Problems Encountered

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Non-Melanoma Skin Cancers

Code	Term	Code	Term
8247/3	Merkel Cell Carcinoma	8890/3	Leiomyosarcoma
8400/3	Sweat Gland Adenocarcinoma	9140/3	Kaposi Sarcoma
8410/3	Sebaceous Adenocarcinoma	9591/3	Non-Hodgkin Lymphoma
8800/3	Sarcoma	9650/3	Hodgkin Lymphoma
8810/3	Fibrosarcoma	9680/3	Diffuse Large B-Cell Lymphoma
8832/3	Dermatofibrosarcoma	9700/3	Mycosis Fungoides
8850/3	Liposarcoma	9709/3	Cutaneous T-Cell Lymphoma

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Problem SSFs

- All Mitotic Count/Rate Factors – WHY?
- Melanoma Skin – Depth of Invasion, Mitotic Count
- Clinical Assessment of Regional Lymph Nodes
  - Stomach
  - Appendix
  - Colon
  - Rectum
  - NET Stomach
  - NET Colon
  - NET Rectum
  - Breast
  - Skin Melanoma
  - Skin Merkel Cell

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Problem SSFs - Breast

- Easy to Find Site Specific Factors
  - ER
  - PR
  - HER2
  - Test Value
  - Test Result
  - Tally Results into Profile
- Difficult Site Specific Factors
  - # Positive Ipsilateral Level I-II Axillary Lymph Nodes
  - IHC of Regional Lymph Nodes
  - FISH or CISH Testing for HER2
  - Size of Invasive Component
  - Circulating Tumor Cells
  - Disseminated Tumor Cells

References / Resources

1. Dryden M and Brogan K. Quality Control. Chapter 20 in Menck H, et al. *Central Cancer Registries: Design, Management and Use, second edition*. Kendall Hunt Publishing Co., 2007.

2. Hilsenbeck SG, et al. *Quality Control for Cancer Registries*. National Cancer Institute, U.S. Department of Health and Human Services, 1985.

3. Hilsenbeck SG. Quality Control. Chapter 7 in: Menck H, et al. *Central Cancer Registries: Design, Management and Use*. Harwood Academic Publishers, 1994.

4. Ross F. Quality Control of Cancer Registry Data. Chapter 21 in Menck H, et al. *Cancer Registry Management: Principles and Practice, second edition.* Kendall Hunt Publishing Co., 2004.

References / Resources

5. NAACCR *Standards for Cancer Registries Volume III: Standards for Completeness, Quality, Analysis, and Management of Data,* October 2004.

6. NPCR Educational Materials for Cancer Registrars
   - Volume 3: Data Editing and EDITS: Procedures for Central Registries
   - Volume 4: Coding and Visual Editing: Procedures for Central Registries
   - Volume 6: Audits: Casefinding and Reabstracting: Procedures for Central Registries

7. Unpublished materials provided by National Program of Cancer Registries

Thanks and Appreciation

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- FCDS Moodle Team
  - Melissa Williams
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Questions