






## CDC & Florida DOH Attribution



"We acknowledge the Centers for Disease Control and Prevention, for its support of the Florida Cancer Data System, and the printing and distribution of the materials for the 2015-2016 FCDS Webcast Series under cooperative agreement DP003872-03 awarded to the Florida Department of Health. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention".

FCDS would also like to acknowledge the Florida Department of Health for its support of the Florida Cancer Data System, including the development, printing and distribution of materials for the 2015-2016 FCDS Webcast Series under state contract CODJU. The findings and conclusions in this series are those of the author(s) and do not necessarily represent the official position of the Florida Department of Health.

## Agenda

Florida Cancer Data System Annual Meeting Day 1 - Wednesday, July 26, 2017 Wyndham Grand Orlando Resort at Bonnet Creek		<span style="color: green;">★</span> <b>NCPA CEU 2017-088</b> <span style="color: green;">★</span> Total Conference CEU = 9.5 hours Category A CEU = 3.75 hours	
8:30 am to 9:30 am	Registration	8:30 am to 9:30 am	Registration
9:30 am	Welcome and Introduction by Florida Department of Health Dr. Aron Mink, Commissioner University of Miami Miller School of Medicine Dr. Paul Lee, MD, FCDS Medical Director	9:30 am to 10:30 am	Break
10:30 am to 10:45 am	FCDS Updates	10:30 am to 11:30 am	Break
10:45 am to 11:00 am	FCDS Updates - State of the State	11:30 am to 12:00 pm	Break
11:00 am to 11:15 am	Florida Cancer League Project Updates	12:00 pm to 12:30 pm	Break
11:15 am to 11:30 am	FCDS National Research	12:30 pm to 1:00 pm	Break
11:30 am to 12:00 pm	Professional Learning Collaborative for the Cancer Transformation Community (FLCNC) - Environmental Policy 2	1:00 pm to 1:15 pm	Break
12:00 pm to 12:30 pm	Break	1:15 pm to 1:30 pm	Break
12:30 pm to 12:45 pm	Highlights from the NCI/CDC 2017 Annual Conference	1:30 pm to 1:45 pm	Break
12:45 pm to 1:00 pm	2016 Data Acquisition Summary	1:45 pm to 2:00 pm	Break
1:00 pm to 1:15 pm	2016 FCDS Q4 Activation Summary	2:00 pm to 2:15 pm	Break
1:15 pm to 1:30 pm	Updates on Reporting to LACSIS System	2:15 pm to 2:30 pm	Break
1:30 pm to 1:45 pm	Updates on Reporting of Site Expenditures	2:30 pm to 2:45 pm	Break
1:45 pm to 1:55 pm	FCDS Facility Follow-Up Report to OSHA (Health & Safety)	2:45 pm to 3:00 pm	Break
1:55 pm to 2:00 pm	2016 FCDS Data Quality Evaluation	3:00 pm to 3:15 pm	Break
2:00 pm to 2:15 pm	2016 FCDS Data Quality Audit (Long - 2016 Data & 2017 Data)	3:15 pm to 3:30 pm	Break
2:15 pm to 2:30 pm	2016 Updates on National Standards - ICD-O-3, ICD-O-3, ICD-O-3	3:30 pm to 3:45 pm	Break
2:30 pm to 2:45 pm	Break	3:45 pm to 4:00 pm	Break
2:45 pm to 3:00 pm	Open House and Presentation	4:00 pm to 4:15 pm	Break
3:00 pm to 4:00 pm	2017-2018 FCDS Education and Training Plan	4:15 pm to 4:30 pm	Break
4:00 pm to 4:30 pm	Round Table Discussion	4:30 pm to 4:45 pm	Break
4:30 pm	Wrap Up and Adjourn	4:45 pm to 5:00 pm	Break

## Recorded Sessions & Materials

<https://fcds.med.miami.edu/inc/educationtraining.shtml>

### Education & Training

Annual Conference | Educational Resources | NCI/CDC Resources

July 26th - 27th, 2017  
 FCDS Annual Meeting  
 FCDS Annual Meeting  
 FCDS National Research  
 FCDS Facility Follow-Up Report to OSHA (Health & Safety)  
 FCDS Updates  
 FCDS Updates - State of the State  
 Florida Cancer League Project Updates  
 Highlights from the NCI/CDC 2017 Annual Conference  
 2016 Data Acquisition Summary  
 2016 FCDS Q4 Activation Summary  
 2016 Updates on National Standards - ICD-O-3, ICD-O-3, ICD-O-3  
 2016 Updates on Reporting to LACSIS System  
 2016 Updates on Reporting of Site Expenditures  
 2016 FCDS Data Quality Evaluation  
 2016 FCDS Data Quality Audit (Long - 2016 Data & 2017 Data)  
 2016 Updates on National Standards - ICD-O-3, ICD-O-3, ICD-O-3  
 Open House and Presentation  
 2017-2018 FCDS Education and Training Plan  
 Round Table Discussion  
 Wrap Up and Adjourn

Handouts/Recordings

Day 1

- No CEUs will be awarded for recorded sessions of FCDS Annual Conference
- 2016 Update Data System 2016 - Recording
- FCDS Update - State of the State, Steve Lewis, BA, CTR - Recording
- Florida Cancer League Project Update, David Lee, PhD - Recording
- FCDS National Research Update, David Lee, PhD - Recording
- A Professional Learning Collaborative for the Cancer Transformation Community (FLCNC) - Environmental Policy 2 - Recording
- Highlights from the NCI/CDC 2017 Annual Conference, Aron Mink, MD - Recording
- 2016 Data Acquisition Summary, Mike Tracy, MPH - Recording
- 2016 FCDS Q4 Activation Summary, Steve Lewis, BA, CTR - Recording
- Update on Reporting to LACSIS System, Steve Lewis, BA, CTR - Recording
- Update on Reporting of Site Expenditures, Michael Minkovitch, PhD - Recording
- FCDS Facility Follow-Up Report to OSHA (Health & Safety), Steve Lewis, BA, CTR - Recording
- 2016 FCDS Data Quality Evaluation, Mike Tracy, CTR - Recording
- 2016 FCDS Data Quality Audit (Long - 2016 Data & 2017 Data), Steve Lewis & Mike Tracy - Recording
- 2016 Update on National Standards - ICD-O-3, ICD-O-3, ICD-O-3, Steve Lewis, BA, CTR - Recording
- 2016 Update on Reporting to LACSIS System, Mike Tracy, MPH - Recording
- 2016 Update on Reporting of Site Expenditures, Steve Lewis, BA, CTR - Recording
- Recordings of Round Table Discussion

Day 2

- This is the the NCI/CDC Cancer Research Panel, BA Aron Mink, Steve Lewis, BA, CTR - Recording
- This is the NCI/CDC Cancer Research Panel, BA Aron Mink, Steve Lewis, BA, CTR - Recording
- FCDS 2017: Health and Reporting the 2016 A Data Update, BA, CTR - Recording
- Recent Developments in Cancer Research and Treatment, Steve Lewis, BA, CTR - Recording

## Modernizing the Florida Cancer Data System



Tara Hylton, MPH  
Administrator  
Registries & Surveillance Section  
Public Health Research  
Division of Community Health Promotion

## Modernizing FCDS – Current Steps

- **How to Accomplish:**
  - Increase cancer reports from ALL non-hospital sources
  - Increase external data linkages
- **Resources to Accomplish:**
  - Specialized staff
  - Develop processing software to assist in consolidation
  - Develop educational resources and tools

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## Modernizing FCDS – Current Steps

- **Accomplished thus far:**
  - Collecting claims data from select private physicians
    - Provides a new cancer abstract, if not already in the FCDS masterfile
    - Provides granular treatment information
  - Linkage with the Florida Veterans Administration (VA) Hospitals
  - Improved Learning Management System (LMS)
  - Improvements in data access and release (DREAMS)

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## Modernizing FCDS – Next steps


- **How to Accomplish (with minimal burden to providers or systems):**
  - Include comorbidity data
  - Include genetic information
  - Include screening data
- **Resources to Accomplish:**
  - Revising statute and administrative code, where needed
  - Specialized staff
  - Developing new partnerships
  - Develop processing software


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## Vision for FCDS

Modernized cancer registry ensures:

- Complete and high quality data **representative of all Florida** available for use by:
  - Researchers
  - Prevention, outreach, and education programs
  - Citizens of the state of Florida
  - Healthcare professionals
  - Policy makers
- Challenges of changing cancer management are accounted for in FCDS' data collection procedures
- FCDS has a solid foundation upon which to develop further strategic and desired enhancements





## FCDS UPDATE: THE STATE OF THE STATE

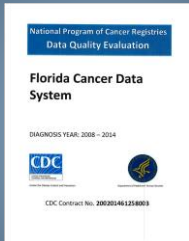
**Gary M. Levin, BA, CTR**  
 FCDS Annual Conference 7/26/2017

## NAACCR Gold Certification Fifteenth Consecutive Year!!



Your Hard Work and Dedication Makes this Possible - Thank You

## Overall Data Accuracy Rate 99.1%



Your Hard Work and Dedication Makes this Possible - Thank You

## New Accomplishments - DREAMS



- 101 Data Request Applications Entered Since Implementation
- Tracks Data Request from Start To Completion
  - Application
  - DOH Approvals/IRB Approvals/Vital Statistics Approvals
  - Secure Messaging between Requestor/FCDS/ DOH
  - Secure Delivery of Requested Data to Requestor

Web Link: <https://fcds.med.miami.edu/inc/datarequest.shtml>

## New Accomplishments - FLccSC LMS



- Joint Project between Florida and South Carolina CCRs
- Over ~200 Students Registered in Florida
- Current Courses
  - New Abstractor and Annual Renewal Code Test
  - Abstractor Basic Course (Updates coming)
- Administrator Controls Content, Quizzes & Student Registration
- Keeps History of Student
  - Courses Completed and Quiz Scores
  - CEU's and Allows for On-Demand Printable Certificates

Web Link: <https://fcds.med.miami.edu/inc/flccsc.shtml>

## Firefighter Cancer Linkage Project Update

David J. Lee<sup>1,2,3</sup>, Tulay Koru-Sengul<sup>1,2,3</sup>, Monique N. Hernandez<sup>1</sup>, Jill A. MacKinnon<sup>1</sup>, Alberto Caban-Martinez<sup>2,3</sup>, Laura A. McClure<sup>1,3</sup>, Erin Kobetz<sup>4</sup>

<sup>1</sup>Florida Cancer Data System (FCDS), University of Miami Miller School of Medicine

<sup>2</sup>Department Public Health Sciences, University of Miami Miller School of Medicine

<sup>3</sup>Sylvester Comprehensive Cancer Center, University of Miami Miller School of Medicine

<sup>4</sup>Department Medicine, University of Miami Miller School of Medicine



This work was supported by State of Florida appropriation #2382A

## Firefighter Cancer Initiative (FCI) Goals

- To monitor, understand and address the excess burden of cancer among firefighters
- 13 interlocking projects designed to move innovative research from "bench" to "trench"



## Annual Cancer Survey and Exposure Reporting

- Annually collect health information and cancer risk factors of active and retired Florida firefighters (n > 1000)
- Long-term goal is to use data to identify occupational and other exposures linked to cancer risk



## Previous Research Using FCDS

### Cancer Incidence in Florida Professional Firefighters, 1981 to 1999

Fangchao Ma, MD, PhD  
Lora E. Fleming, MD, PhD  
David J. Lee, PhD  
Edward Trapielo, ScD  
Terrence A. Geraco, PhD

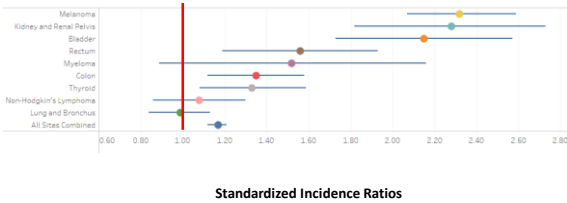
*Objective:* The objective of this study was to examine the cancer risk associated with firefighting. *Methods:* Standardized incidence ratio analysis (SIR) was used to determine the relative cancer risk for firefighters as compared with the Florida general population. *Results:* Among 34,796 male (413,022 person-years) and 2,017 female (18,843 person-years) firefighters, 970 male and 52 female cases of cancer were identified. Male firefighters had significantly increased incidence rates of bladder (SIR = 1.29; 95% confidence interval = 1.01–1.62), testicular (1.60; 1.20–2.09), and thyroid cancers (1.77; 1.08–2.73). Female firefighters had significantly increased incidence rates of overall cancer (1.63; 1.22–2.14), cervical (5.24; 2.93–8.65), and thyroid cancer (3.97; 1.45–8.65) and Hodgkin disease (6.25; 1.28–18.26). *Conclusions:* Firefighting may be associated with an increased risk of selected site-specific cancers in males and females, including an overall increased cancer risk in female firefighters. (J Occup Environ Med. 2006;48:883–888)

Firefighters are routinely exposed to various carcinogens during firefighting and overhaul (ie, time period for searching and extinguishing hidden fires after the main fire is brought under control).<sup>1</sup> Carcinogens such as benzene and polycyclic aromatic hydrocarbons (PAHs) have been frequently detected in fire smoke.<sup>2</sup> Epidemiologic studies have demonstrated an increased risk for several cancers that can be plausibly linked to carcinogens encountered by firefighters in the course of their work.<sup>3,4</sup> There is evidence of excess mortality from leukemia, non-Hodgkin lymphoma, multiple myeloma, and cancers of the brain and bladder. Weaker but still plausible evidence has linked firefighting to increased mortality risks from melanoma and cancer of the rectum, colon, stomach, prostate, and lung.<sup>5–11</sup> Because most previous studies of firefighters and cancer were based on mortality data, the full extent of their cancer risk, in particular the risk of being diagnosed with cancer, is not yet known. This retrospective co-



## Results

Select High-Priority Cancer Standardized Incidence Ratios: FCDS Years 1981-2013



## Future Direction 2017-18

- Recent statute modification now allows for release of SS #; may help 'recover' cases among the 30,000 records we could not link
  - Will enable us to include vital missing female cases and will further strengthen case counts for males
- Relink with the cancer registry and undertake linkage with mortality file

633.516 Division to make study of firefighter-employee occupational diseases—Studies of occupational diseases of firefighters or persons in other fire-related fields — The division shall make a continuous study of is authorized to contract for studies, subject to the availability of funding, of firefighter-employee occupational diseases of firefighters or persons in other fire-related fields, and the ways and means for their control and prevention of such occupational diseases, and shall adopt rules as necessary for such control and prevention. For this purpose, the division is authorized to cooperate with firefighter-employees, firefighter employees and insurers and with the Department of Health. For such studies, as well as other studies of firefighter or persons in other fire-related fields, that are funded, in whole or in part, under an agreement, including contracts or grants, with the department, the division is authorized to release confidential information for such firefighter or persons in other fire-related fields, to parties who have entered agreements, with associated security measures, with the department when the study being conducted tracks diseases on an individual.



## Cancer Survival in Florida 1999-2003

### or Why Rates are Harder Than Counts

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Anders Alexandersson  
Florida Cancer Data System

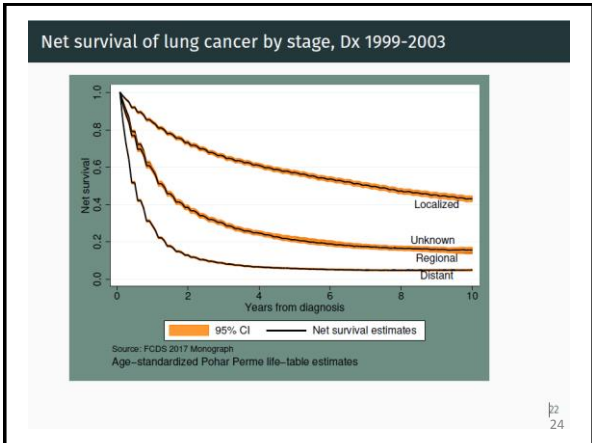
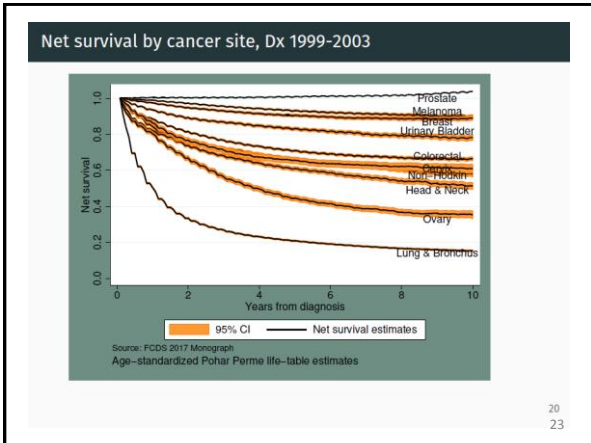
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### Survival analysis approaches and recommended FCDS usage

		Framework	
		Cause-specific	Relative
Measure	Crude	Registry-based randomized controlled trial (RRCT)	Risk communication
	Net	Causality with observational data	Life tables

Pohar Perme estimates →

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Read the FCDS 2017 **Monograph**[1] and  
the **Technical Report**[2]. ☺

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**FLccSC**  
Fundamental Learning  
Collaborative for the Cancer  
Surveillance Community

Florida's New Distance Learning Platform

Jill MacKinnon, PhD

FCDS  
Florida Cancer Data System

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## What is FLccSC

- Web based distance educational platform  
– Learning Management System (LMS)



FCDS  
Florida Cancer Data System

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## FLccSC is the Umbrella Platform

- FLccSC is fully functioning LMS administered and maintained on a central server managed by the Florida Cancer Data System
- Each CCR LMS operates as a stand-alone customized platform (logos, branding and URL)
  - Accessible via a link on the CCR web site
- Each CCR has a site administrator who maintains their respective CCR site

FCDS  
Florida Cancer Data System

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## FLccSC Enrollment Statistics

- Over 200 active users as of Monday
  - Abstractor Basic Course
    - 47 students enrolled
    - 45 course in process
    - 2 completed
  - Abstractor Renewal Test
    - 125 abstractors enrolled
    - 14 test in process
    - 111 renewed their Abstractor Code

## FCDS Abstractor Code Test

- Any abstractors working in the State of Florida must have an active abstractor code
  - Successful completion of the FCDS Abstractor Code Test is required for new or renewal codes
    - ALL Tests are now 20 questions – new or renewal
  - Abstractor codes are valid for 12 month
    - FCDS abstractor codes must be renewed annually
- **If you do not have FCDS IDEA login credentials,** please refer to the “New IDEA User” tutorial on the FCDS FLccSC/LMS page

## How to Obtain and Renew your FCDS Abstractor Code

- **Abstractors with an Abstractor Code or Abstractors wishing to get an Abstractor Code MUST log into FLccSC through IDEA**
- Abstractors must login to FCDS IDEA, click the ‘Education/FCDS Tools’ menu item, select the Learning Management System option to access FLccSC in order to take the test
- **Renewal: Abstractors will be notified via email one month prior to their code expiration date**

## Coming Soon

- Steve Peace’s FCDS Webcast Series
  - Webcasts will be presented live
    - Recorded Webcasts will also be available in FLccSC for individuals that didn’t have the opportunity to view it live
  - All quizzes will be in FLccSC
    - CEU’s will be awarded based on the successful completion of a quiz for each webcast – 3 to 5 questions
    - You will also get a Certificate of Completion for your records that will include the NCRA CEU information



## North American Association of Central Cancer Registries 2017 Annual Conference Highlights

Monique N. Hernandez, PhD  
Florida Cancer Data System Annual Meeting July 26, 2017



### Plenary Sessions

- Breaking Barriers - International Cancer Surveillance
- Cancer Surveillance In Action: An International View
- Cancer Surveillance in American Indians/Alaska Natives/Canadian First Nations
- Registry of the Future: Surveillance in an Era of Emerging Technology and Precision Medicine

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### Conference Themes and Topics

- Expanding the role of cancer registries
- Registry data tools
- Improving cancer treatment linkage
- Cancer in native/indigenous peoples
- International Cancer Surveillance
- Cancer epidemiology



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## FCDS Presentations



**Gary Levin**  
*Fundamental Learning Collaborative for the Cancer Surveillance Community (FLccSC)*  
*Advances in Integrating Health Claims Data into Cancer Registry Data Systems*

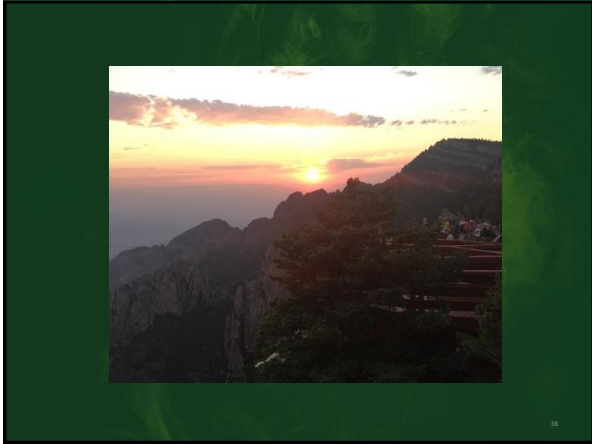
**Anders Alexandersson**  
*Probabilistic Record Linkage at the Florida Cancer Data System: A Data Science Project Using R and Stata*

**Dr. David Lee**  
*Occupational Cancer Surveillance in the Age of Restricted Identifier Access: A Linkage of Florida Cancer Data System (FCDS) Data with Firefighter Certification Records*

**Dr. Monique Hernandez**  
*Physician Medical Claims Reporting in Florida*

**Sasha Raju – Attendee**  
**Steven Peace – Attendee**

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# Data Acquisition Update

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FCDS ANNUAL MEETING  
 JULY 26 AND 27

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## Reporting Entities Summary

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Hospitals	252
Radiation Treatment Centers	127
Surgery Centers	453
Pathology Labs (CLIA's)	1092
Hematologists	23
Oncologists	187
Urologists	507
Dermatologists	943
Other States	42
Other Specialty Physicians	1165
<b>Total</b>	<b>4,791 Reporting Entities</b>

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## 2016 Abstracts Received

As of July 1, 2017

- 182,134 Abstracts for the 2016 Data Year
- Hospitals 168,870
- Radiation Treatment Centers 1,556
- AMBI Surg 97
- Dermatology Physician Abstracts 10,897
- Physician Claims 714

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## Abstract Counts at Deadline (6/30) and 1 year later

	Deadline	1 Year Later
2009 Data (6/2010)	166,303	185,703
2010 Data (6/2011)	136,610	174,701
2011 Data (6/2012)	149,368	185,969
2012 Data (6/2013)	165,991	189,693
2013 Data (6/2014)	171,179	194,862
2014 Data (6/2015)	167,931	200,817
2015 Data (6/2016)	181,216	223,227
2016 Data (6/2017)	182,134	

Average 29K cases up to one year late....

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## Certification of Completeness

Reminder: the requirement to certify when you have completed your submission for the data year

- Provide complete view of who is complete and who is still working on their submissions
- Maintains a record of when a facility is done and maintains a record of any explanation of volume below expected
- Helps us focus on working with Late Reporters

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## Physician Reporting

Claims received by Year

- 2013 4,565,532
- 2014 3,241,465
- 2015 3,449,533
- 2016 3,884,936
- 2017 1,684,871
- Total 17,030,785
- 785 of 901 physicians have sent data (88%)

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## Physician Reporting

### Dermatology Abstracts

• 2011	5,691 abstracts reported
• 2012	7,560 abstracts reported
• 2013	7,647 abstracts reported
• 2014	9,559 abstracts reported
• 2015	11,333 abstracts reported
• 2016	18,859 abstracts reported
• 2017 (as of July 1)	8,534 abstracts reported

Total since inception.....69,183 abstracts

- 729 of 943 have sent data (77% of registered)

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## 2016 Physician Reporting

Oncologists	519,211	Claims Received
Urologists	682,562	Claims Received
HEMA/ONC	2,519,398	Claims Received
Hematologists	13,030	Claims Received

(as of July 1, 2017)

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## 2016-2017 QC Activities Summary

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FCDS ANNUAL CONFERENCE  
ORLANDO, FLORIDA  
7/27/2016



STEVEN PEACE, CTR

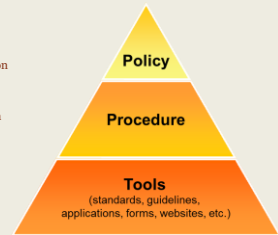


15<sup>th</sup> year in a row!!

## FCDS Data Quality Program - Methods

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- **FCDS Policy**
  - FCDS Abstractor Code Requirement
  - FCDS EDITS Requirement
  - FCDS Text Documentation Requirement
  - FCDS 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
  - QC Review Summary
  - Ad Hoc Reports
  - Audit Results



### Submission Summary & QC Review Sample

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Description	# Cases	% of Total
<b>Total Cases Submitted to FCDS 1/1/2016-12/31/2016 – All Sources</b>	<b>212,547</b>	<b>100%</b>
<b>Total Cases – NO CHANGE – Pass ALL Edits – No Visual Review by FC or QC</b>	<b>201,087</b>	<b>94.6%</b>
<b>Total Cases – FC Visual Review (FC Review to assess case for possible FORCE)</b>	<b>11,460</b>	<b>5.4%</b>
• <b>FORCED (EDIT Override Confirmed and FORCE was set - NOT an error)</b>	4,276	2.0%
• <b>CORRECTED (1 or more corrections made based on text – NOT a FORCE)</b>	5,046	2.4%
• <b>DELETED (duplicate case, not a reportable neoplasm, not a new primary)</b>	2,138	1.0%
<b>Total Cases – Every 25<sup>th</sup> Case QC Review Sample/Visual Editing</b>	<b>9,951</b>	<b>4.7%</b>
• Sample includes <b>4% of analytic</b> hospital, radiation, surgery center cases		
• Sample includes <b>ALL male breast and ALL pediatric</b> cases		
• Sample <b>does not include</b> dermatology or other <b>physician office</b> cases		
<b>Total Cases Visually Edited by FCDS in 2014 (combined FC and/or QC Review)</b>	<b>21,411</b>	<b>10.1%</b>

### QC Review Sample / Visual Editing - Summary

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Description	# Cases	% of Total
<b>Total Cases – Every 25<sup>th</sup> Case QC Review Sample/Visual Editing</b>	<b>9,951</b>	<b>4.7% of All Cases</b>
<b>Total Cases – NO CHANGE on QC Review</b>	<b>6,874</b>	<b>69.1% of QC Sample</b>
<b>Total Cases Sent to Facility with Correction or Inquiry</b>	<b>3,077</b>	<b>30.9% of QC Sample</b>
<b>Total Cases Sent to Facility with Correction or Inquiry</b>	<b>3,077</b>	<b>30.9% of QC Sample</b>
• <b>NO CHANGE after Follow-Back to Facility</b>	408	13.3%
• <b>FORCED (EDIT Override Confirmed - NOT an error)</b>	39	1.3%
• <b>CORRECTED (1 or more corrections made – NOT a FORCE)</b>	2,573	83.6%
• <b>DELETED (duplicate case, not a reportable neoplasm, not a new primary)</b>	57	1.9%

### AHCA In-Patient: Follow-Back Analysis

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AHCA In-Patient Follow-Back	2010	2011	2012	2013	2014
Missed Case - Abstract	5,257	4,063	3,480	3,429	2,848
Abstracted but Not Transmitted	705	669	632	851	693
<b>Total Missed Cases</b>	<b>5,962</b>	<b>4,732</b>	<b>4,112</b>	<b>4,280</b>	<b>3,541</b>
Not Reportable - NED	5,371	5,174	6,024	5,645	5,087
Not Reportable - Not Malignant	2,461	2,348	1,899	1,618	975
Not Reportable - Equivocal	3,466	3,396	3,640	3,253	2,145
Not Reportable - No Mention CA	3,164	3,865	4,656	4,103	1,596
Not Reportable - Other	2,112	2,342	2,237	1,709	4,489
<b>Total Not Reportable</b>	<b>16,574</b>	<b>17,125</b>	<b>18,456</b>	<b>16,328</b>	<b>14,292</b>
<b>Follow-Back Not Returned</b>	<b>436</b>	<b>780</b>	<b>774</b>	<b>732</b>	<b>841</b>
<b>Total AHCA In-Patient Follow-Back</b>	<b>22,972</b>	<b>22,637</b>	<b>23,342</b>	<b>21,340</b>	<b>16,690</b>

### AHCA Ambi: Follow-Back Analysis

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AHCA Ambulatory Follow-Back	2010	2011	2012	2013	2014
Missed Case - Abstract	6,275	4,338	3,757	4,002	3,277
Abstracted but Not Transmitted	575	498	521	581	576
<b>Total Missed Cases</b>	<b>6,850</b>	<b>4,836</b>	<b>4,278</b>	<b>4,583</b>	<b>3,853</b>
Not Reportable - NED	2,573	2,573	2,361	2,651	2,455
Not Reportable - Not Malignant	2,599	2,576	793	798	716
Not Reportable - Equivocal	785	710	498	448	385
Not Reportable - No Mention CA	727	837	1,091	577	377
Not Reportable - Other	2,741	3,061	1,559	1,052	1,218
<b>Total Not Reportable</b>	<b>9,425</b>	<b>9,757</b>	<b>6,302</b>	<b>5,562</b>	<b>5,151</b>
<b>Follow-Back Not Returned</b>	<b>1,549</b>	<b>2,366</b>	<b>1,304</b>	<b>1,559</b>	<b>2,069</b>
<b>Total AHCA Ambulatory Follow-Back</b>	<b>17,824</b>	<b>16,959</b>	<b>11,884</b>	<b>11,668</b>	<b>11,785</b>

## RQRS and FCDS Reporting

53

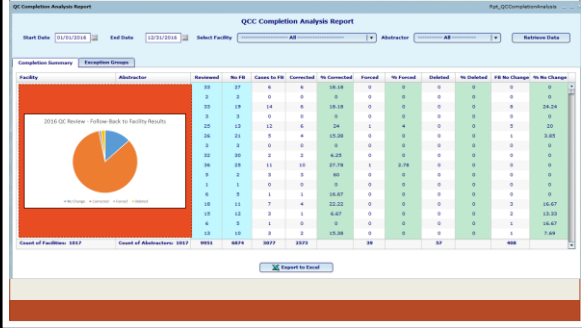
RQRS Data Submission Requirements by Calendar Year	2017	2018	2019
<b>To Achieve Compliance on Standard 5.2</b>			
Data Submission Frequency of new and updated cancer cases	Quarterly	Quarterly	Quarterly
Reportable Cases-Primary sites included	Minimum - eligible (dx) sites* Maximum - All sites reported		
Data Timeliness-% of cases submitted within three months of date of first contact	Not Applicable		
Data Quality- All cancer cases submitted to RQR with all errors are corrected and documented	Not Applicable		
Data Use- RQRS data and performance reports are reviewed by cancer committee and documented in minutes	At least quarterly	At least quarterly	At least quarterly
<b>To Achieve Compliance on Standard 5.3</b>			
Data Submission Frequency of new and updated cases	Monthly		
Reportable Cases-Primary sites included	Minimum - eligible (dx) sites* Maximum - All sites reported		
Data Timeliness-% of cases submitted within three months of date of first contact	20% or less of All cases	20% or less of All cases	20% or less of All cases
Data Quality- All cancer cases submitted to FCDS with all errors are corrected and documented	Cases with errors are re-submitted within three months		
Data Use- RQRS data and performance reports are reviewed by cancer committee and documented in minutes	At least quarterly		
*Minimum - eligible sites are defined as cases having any primary sites covered by the quality measure being assessed in RQRS.			

### FCDS Data Submission Requirements

- Frequency – Quarterly/Monthly
- E-updates to Cases – NOT DONE
- Reportable Cancers – ALL
- Data Timeline – 6 months post dx/tx with June 30<sup>th</sup> Annual Deadline
- Data Quality – Pass All FCDS EDITS
- Data Completeness – DX/TX 1<sup>st</sup> Crs for ALL Analytic Cases – **DO NOT SUBMIT CASES IF INCOMPLETE!!!!**
- June 30<sup>th</sup> – Use TX Recommended Codes for any still incomplete cases.

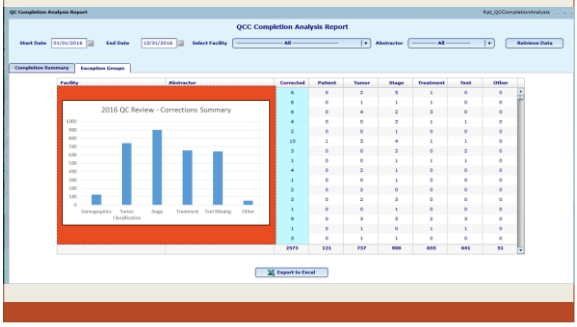
## QC Review Summary Reports

54



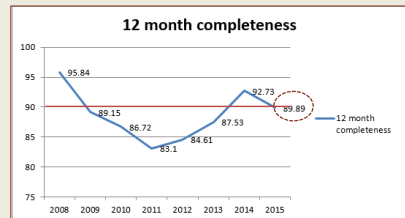
## QC Review Summary Reports

55



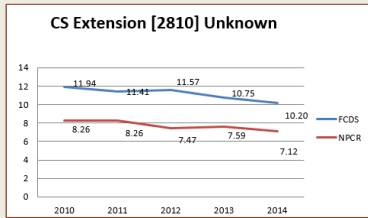
## 2017 Call for Data – NPCR DER Report

56



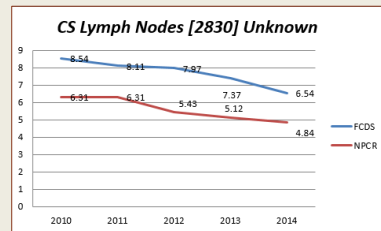
2016 Call for Data – NPCR DER Report

57



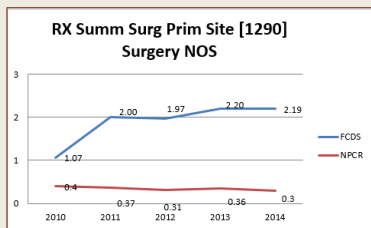
2016 Call for Data – NPCR DER Report

58



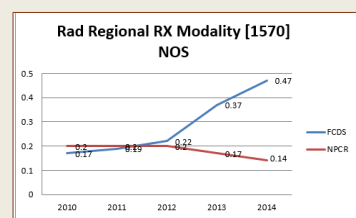
Overuse of Surgery NOS Codes

59




Overuse of Radiation NOS Codes

60









**UPDATE ON PHYSICIAN REPORTING  
AND  
CAPIS SYSTEM**  
(CLAIMS, ABSTRACT & PATHOLOGY INTEGRATION SYSTEM)

Gary M. Levin, BA, CTR  
FCDS Annual Conference 7/26/2017

## Background

- ⦿ Increase physician reporting
  - Capture missing first course treatment
  - Capture missing cases particularly in urological and hematopoietic
- ⦿ Reduce burden on physicians to comply
  - 5010/837 reporting data standard
  - Duplicate claims submission and send to registry
- ⦿ Process has evolved for almost 5 years

## Background

- ⦿ Received Over 17 Million Claims
  - Primarily Medical Oncologists and Dermatologists
- Registration of Physician
  - ⦿ Over 2,000 Physicians Registered
  - ⦿ Used Florida Licensure and NPI to Identify
  - ⦿ Mass e-mail sent where e-mail available
  - ⦿ **EXTREMELY** Labor Intensive
- Statewide Coverage

## Results – Treatment Enhancing Abstracts

- ⦿ Patient/Tumor Linked Successfully
- ⦿ Shadow image of consolidated Patient and Tumor data
- ⦿ Overlay all treatment information gleaned from claims
- ⦿ Process, link and consolidate according to routine process
- ⦿ Improves First Course Therapy
- ⦿ Date of Last Contact – set to highest claims date

### Results – Treatment Enhancing Abstracts

Dx Year	Chemo	Surgery	Radiation	Hormone	BRM
2010	1,298	0	6	73	4
2011	3,141	2	81	159	10
2012	3,481	20	409	257	101
2013	6,417	134	1,307	842	706
2014	8,158	181	1,953	1,239	1,177
2015	5,957	64	1,367	796	991
<b>Total</b>	<b>28,452</b>	<b>401</b>	<b>5,123</b>	<b>3,366</b>	<b>2,989</b>
Processed	54,163				
Enhancements	40,331				

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### Results – Treatment Enhancing Abstracts

Chemo Improvement By Site	Count	Radiation Improvement by Site	Count
Lung and Bronchus	7,782	Prostate	2,217
Breast	6,830	Breast	1,007
Pancreas	1,517	Lung and Bronchus	814
Non-Hodgkin Lymphoma - Nodal	1,440	Rectum	179
Rectum	1,031	Esophagus	78
Myeloma	825	Brain	74
Esophagus	752	Cervix Uteri	65
Ovary	638	Anus, Anal Canal and Anorectum	64
Urinary Bladder	630	Larynx	63
Sigmoid Colon	582	Corpus Uteri	57

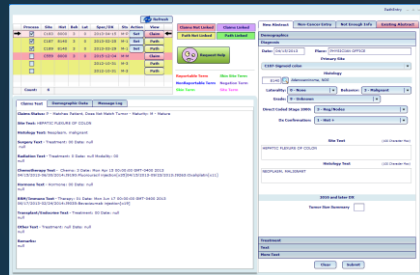
71

### Results – New Incidence Abstracts

- ⦿ Claims Abstracts Not Matching Database
- ⦿ Link claims abstract to Pathology Reports
- ⦿ Visual Review (Labor Intensive)
  - Create case finding abstracts
  - Link to existing cases (missed automated linkage)
  - Send case to physician for follow back
  - Mark as non-cancer/non-reportable case

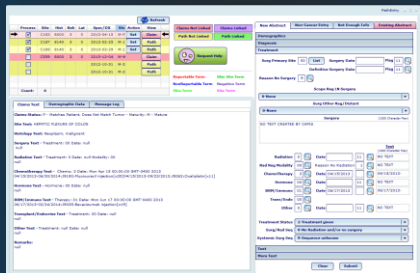
75

### Results – New Incidence Abstracts



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### Results – New Incidence Abstracts



### Results – New Incidence Abstracts

Dx Year	New Cases
2010	768
2011	5,968
2012	3,359
2013	8,400
2014	7,271
2015	9,455
<b>Total</b>	<b>35,221</b>

New Case by Site	New Cases
Miscellaneous Heme/Lymph Malignancies	16,944
Non-Hodgkin Lymphoma - Extranodal	4,729
Chronic Lymphocytic Leukemia	3,933
Myeloma	2,192
Leukemic, subleukemic and NOS	1,610
Non-Hodgkin Lymphoma - Nodal	1,084
Breast	1,021
Chronic Myeloid Leukemia	899
Acute Myeloid Leukemia	539
Other Lymphocytic Leukemia	472
Urinary Bladder	258
Melanoma of the Skin	252
Prostate	228

## Update on Meaningful Use



### Meaningful Use Cancer Reporting in Florida

Florida Cancer Data System Annual Meeting  
Orlando, FL  
July 26<sup>th</sup>, 2017

### Meaningful Use Overview

The American Recovery and Reinvestment Act, enacted in February 2009, includes many measures to modernize our nation's infrastructure, one of which is the [Health Information Technology for Economic and Clinical Health \(HITECH\) Act](#). The HITECH Act supports the concept of electronic health records meaningful use (EHR-MU), an effort led by the Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator for Health IT (ONC). HITECH proposes the meaningful use of interoperable electronic health records throughout the United States' health care delivery system as a critical national goal.

CMS establishes the criteria that eligible professionals (EPs) and hospitals as well as critical access hospitals must meet to qualify for Medicare and/or Medicaid electronic health record (EHR) incentive payments as they adopt, implement, upgrade, or demonstrate meaningful use of certified EHR technology. ONC establishes the standards, implementation specifications, and certification criteria for EHR technology that will support implementation of the Stage 2 criteria described by CMS. The criteria and standards for [Stage 2 Meaningful Use Final Rules](#) released by the [ONC](#) and [CMS](#) were published in the [Federal Register](#) on September 4, 2012.



### Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries



HL7 Clinical Document Architecture (CDA)



Release 1.1.7b

March 2014

## What is MU?

### Meaningful Use Definition & Objectives

**Meaningful Use Defined**

Meaningful use is using certified electronic health record (EHR) technology to:




- Improve quality, safety, efficiency, and reduce health disparities
- Engage patients and family
- Improve care coordination, and population and public health
- Maintain privacy and security of patient health information

Ultimately, it is hoped that the meaningful use compliance will result in:

- Better clinical outcomes
- Improved population health outcomes
- Increased transparency and efficiency
- Empowered individuals
- More robust research data on health systems

Meaningful use sets specific objectives that eligible professionals (EPs) and hospitals must achieve to qualify for Centers for Medicare & Medicaid Services (CMS) Incentive Programs.

## Ongoing Follow-up and Feedback

- ▶ Monthly review of onboarding status
- ▶ Communication with practice throughout process
- ▶ Check for file submissions/validate
- ▶ Send quality report
- ▶ Track Follow-up status in database

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## Future Steps

- ▶ Incorporate MU abstracts into workflow
- ▶ Integrate into FCDS claims/pathology workflow
- ▶ Streamline data validation and integration into registry database
- ▶ Continue to work with providers for registration, onboarding, and audit documentation.

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## FCDS IDEA Follow Up System "A Refresher"

Gary M. Levin, CTR, BA  
FCDS Annual Conference  
July 26<sup>th</sup>, 2017



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### Facility Follow Up System Usage Statistics

Year	# Users	Requests
2014	23	215,155
2015	18	139,352
2016	17	334,776
2017	10	80,754
<b>Total</b>	<b>68</b>	<b>770,037</b>
<b>Unique Users</b>	<b>43</b>	

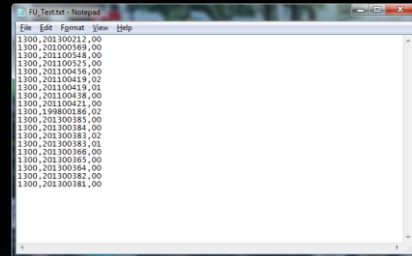
### Facility Follow Up System Concepts

- Purpose: Assist Facilities with Patient Follow Up
- Facility Provides Facility, Accession, Sequence #
- System Validates and Returns Consolidated Patient and Tumor Information for the requested cases
- Results can vary from facility case since it is based on consolidation from many reporting sources

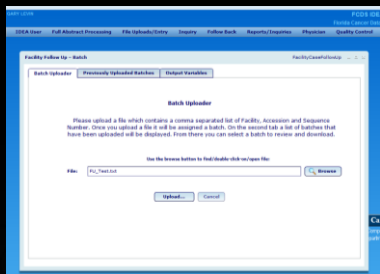
### Facility Follow Up System Concepts - Input

NAACCR Data Item	Field Name
540	Reporting Facility
550	Accession Number--Hosp
560	Sequence Number--Hosp

### Facility Follow Up System How To Use – Input File

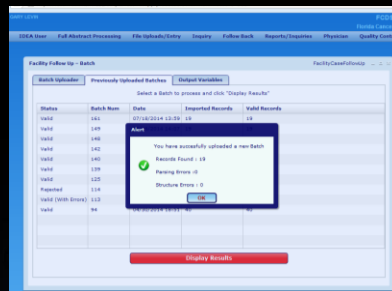


## Facility Follow Up System How To Use



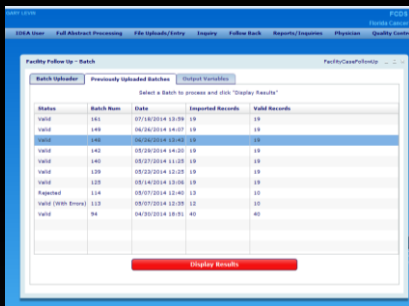
85

## Facility Follow Up System How To Use



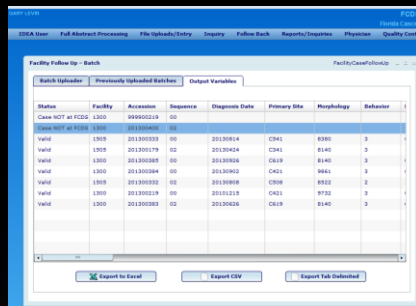
86

## Facility Follow Up System How To Use



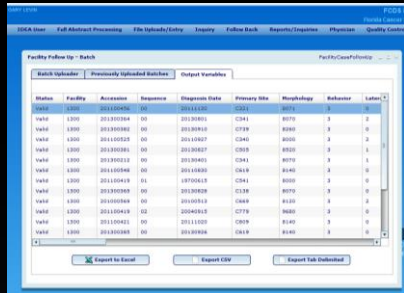
87

## Facility Follow Up System How To Use

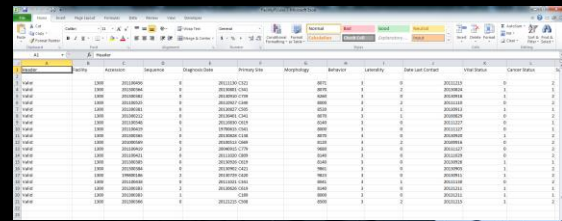


88

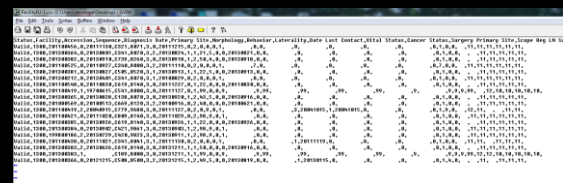
# Facility Follow Up System How To Use



# Facility Follow Up System How To Use - Excel Format



# Facility Follow Up System How To Use - CSV Format



# Facility Follow Up System How To Use – Single Case Inquiry

## National Program of Cancer Registries 2016 Data Quality Evaluation

Diagnosis years: 2008-2014

Contract Number: 200201461250009

FCDS Annual Meeting

July 26, 2017

Meg Herma, CTR

Steven Peace, CTR



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## Methodology

- FCDS prepared two extract files:
  - Diagnosis years 2008-2014
  - Primary sites of breast, colon, prostate, lung, bladder, and melanoma of the skin
  - Behavior 2 or 3
- A random sample of 438 cases were selected from the submitted data file.
  - These 438 cases were reconsolidated and compared to FCDS consolidated cases.
  - Cases were reviewed for the accuracy of code against the supporting text.
- Breast and colon cases were also run through the NPCR Clinical Check Edits to evaluate reported prognostic and treatment items for cancer cases with specific tumor characteristics.

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## Data Elements Reviewed

20 Patient ID Number	1220 RX Date—Chemo
40 RegistryID	1221 RX Date—Chemo Flag
80 Sequence Number—Central	1230 RX Date—Hormone
390 Date of Diagnosis	1231 RX Date—Hormone Flag
400 Primary Site	1240 RX Date—BRM
410 Laterality	1241 RX Date—BRM Flag
440 Grade	1250 RX Date—Other
722 Histologic Type ICD-O-3	1251 RX Date—Other Flag
723 Behavior Code ICD-O-3	1260 Date of Initial Rx—SEER
540 Reporting Facility	1261 Date of Initial Rx—SEER Flag
820 Regional Lymph Nodes Positive+	1270 Date of 1st Or Rx—CoC
830 Regional Lymph Nodes Examined+	1271 Date of 1st Or Rx—CoC Flag
1200 RX Date—Surgery	1280 RX Summ—Surg Prim Site
1209 RX Date—Surgery Flag	1292 RX Summ—Scope Ring Lx Sur
1210 RX Date—Radiation	1294 RX Summ—Surg Other Reg/Os
1211 RX Date—Radiation Flag	

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## Data Elements Reviewed

1360 RX Summ—Radiation	2620 RX Text—Radiation (Beam)
1390 RX Summ—Chemo	2630 RX Text—Radiation Other
1400 RX Summ—Hormone	2640 RX Text—Chemo
1410 RX Summ—BRM	2650 RX Text—Hormone
1420 RX Summ—Other	2660 RX Text—BRM
1570 Rad—Regional RX Modality	2670 RX Text—Other
2520 Text—DX Proc—PE	2680 Text—Remarks
2530 Text—DX Proc—X-ray/Scan	2800 CS Tumor Size+
	2810 CS Extension+
2540 Text—DX Proc—Scopes	2830 CS Lymph Nodes+
2550 Text—DX Proc—Lab Tests	2850 CS Mets at Dx+
2560 Text—DX Proc—Op	2880 CS Site Specific Factor 1+
2570 Text—DX Proc—Path	2900 CS Site Specific Factor 3+
2580 Text—Primary Site Title	3020 Derived SS2000
2590 Text—Histology Title	3250 RX Summ—Transplant/Endour
2600 Text—Staging	

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## Number of Data Elements Reviewed by Site

Site	Number of Data Elements (a)	Number of Abstracts (b)	Total Number of Data Elements (abstract-level) (c = a * b)	Number of Consolidated Tumors (d)	Total Number of Data Elements Audited (tumor-level) (e = a * d)
Bladder	23	160	3,680	73	1,679
Breast	23	158	3,634	73	1,679
Colon	23	151	3,473	73	1,679
Lung	23	154	3,542	73	1,679
Melanoma	23	154	3,542	73	1,679
Prostate	23	153	3,519	73	1,679
<b>Total</b>	<b>138</b>	<b>930</b>	<b>21,390</b>	<b>438</b>	<b>10,074</b>

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## DQE Results Case Consolidation

- Of a total of 10,074 possible data elements that could had errors, only 89 data elements (0.9%) were found to have errors.
- Data accuracy rate was **99.1%**.

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## DQE Results Frequency of multiple primary errors across all sites

Total number of cases analyzed	Number of cases with no errors	Number of cases with error	Accuracy proportion
1057	1015	43	96.0%
Total number of patient level records analyzed	Number of patients with no errors	Number of patients with error	Accuracy proportion
400	372	28	93.0%

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## NPCR DQE Results

FCDS's overall data accuracy rate of merged data was 99.1 percent; FCDS is to be commended for this result.

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### Audit Summary Reports

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### Audit Summary Reports

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FCDS 2016 Data Validation and E-Pathology ReAbstract Audit Report Key

(Major, Minor and Text Errors Defined by Section of Audit Report)

Major Error	Minor Error	Text Error
Major Errors are errors that may result in significant changes to the case or may alter case data or key information on the case	Minor Errors are errors that will not result in significant changes to the case or will not alter case data/key information on a case	Text Errors are errors found in recording data from original text, only. The original text resulted in minor coding or other error that was later resolved at time of facility reconciliation when text was provided after the fact
<b>Example:</b> Date of diagnosis after final reconciliation was different by more than 2 months	<b>Example:</b> Date of diagnosis after final reconciliation was different by less than 30 days	<b>Example:</b> There was no text documentation to identify the correct Date of Diagnosis – However, at the time of facility reconciliation sufficient text was provided to verify the dx date

Case Diagnosis Data Items

Date of Dx > 1 month	Date of Dx < 1 month	Any Tumor Item Noted as - Text
Laterality	Primary Sub Site Code	(Indicates text incomplete)
Morphology	Grade Values	
Behavior		

Stage at Diagnosis and Stage-Related Data Items

CS Tumor Size/Extension	Tumor Size Values	Any Stage Item Noted as - Text
CS Lymph Nodes	# Regional Nodes Positive	(Indicates text incomplete)
CS Metastatic Dx	# Regional Nodes Examined	
	Any Site Specific Factor Code	

### Audit Technical Summary Report

107

- Tumor Size 000 (no evidence of primary tumor) vs. 999 (unk)
- Several Regional Lymph Node Issues
  - N1, N2 and N3 are ALL "regional lymph nodes"

- Must look at whether hilar or mediastinal nodes – do not treat as same
- Coding FNA of Regional Lymph Node in Scope of Reg Lymph Node Surgery
- Coding Regional Lymph Nodes Examined / Regional Lymph Nodes Positive
- Disconnect between Surgery of Primary Site Code 30 versus 33 and "regional" node definitions – often code 33 is for mediastinal node removal

### Webcast: Lung Cancer Data Quality & Staging

108

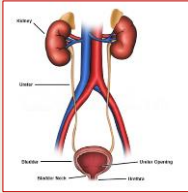
Same Day

- FCDS Webcast on **11/16/2017**
- Lung Cancer Facts
- FCDS Audit Findings
- FCDS Audit Recommendations
- Review of Lung Anatomy for Staging
- Review of Lung Cancer Staging Issues
  - SS2000 and SS2018
  - AJCC 7<sup>th</sup> edition
  - AJCC 8<sup>th</sup> edition
  - SSFs - Site Specific Items Required for Staging
- Staging & Site Specific Items - Practice Cases
- Latest Research
- Q&A

## 2017 Audit Plan

109

- Genitourinary System
  - Kidney
  - Bladder
  - Prostate
- 2016 Diagnosis Year
- Analytic Cases Only
- ~65 Facilities
- ~500 cases
- Sample will include free-standing radiation therapy centers



- FOCUS: Grade Rules, MPH Rules, Staging, Treatment

## FCDS Florida Cancer Data System

### 2018 Updates to National Standards

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**FCDS ANNUAL CONFERENCE**  
**ORLANDO, FLORIDA**  
**7/26/2017**

**STEVEN PEACE, CTR**






- ICD-O-3 New Histology Codes
- ICD-O-3 Behavior Changes
- Solid Tumor MPH Rules & DB
- AJCC 8<sup>th</sup> edition
- SSF Items - Major Change
- New Treatment Items




- SS2018 & EOD 2018
- Gene Testing
- Biomarkers
- CAP Templates
- EDITS v18
- 'yp' & 'yc' TNM

## Presentation Outline

111

- 2018 – A Year for Major Changes to Data Standards
- Major Changes to Site-Specific Data Items
- Many New Treatment Data Items
- Many New Staging Data Items
- 2018 Solid Tumor Rules
- 2018 Solid Tumors Database
- ICD-O-3 Code & Behavior Updates
- Updates to Reportable Cancers List
- Cancer Staging Updates
  - AJCC 8<sup>th</sup> ed. Implementation
  - SEER EOD 2018
  - SS2018
  - EDITS v18
- Medicare Beneficiary Identifier (MBI) replaces SSN for CMS Billing



## Major Changes to Site-Specific Data Items

112

New Data Items – Old SSFs New Codes & Instructions	New Data Items – Old SSFs New Codes & Instructions
<ul style="list-style-type: none"> <li>○ FIGO Stage</li> <li>○ Lymph Nodes Laterality-Vulva</li> <li>○ Lymph Nodes Laterality-Vagina</li> <li>○ Lymph Nodes Assessment Method Para-aortic-Vagina</li> <li>○ Lymph Nodes Assessment Method Pelvic-Vagina</li> <li>○ Lymph Nodes Assessment Method Femoral-Vagina</li> <li>○ Lymph Nodes Distant: Mediastinal, Scalene SSF 6-Vagina</li> <li>○ Lymph Nodes Distant: Mediastinal, Scalene SSF 7-Vagina</li> <li>○ Peritoneal Cytology-Corpus</li> <li>○ Pelvic Nodes Number Positive SSF3-Corpus</li> <li>○ Pelvic Nodes Number Positive SSF4-Corpus</li> <li>○ Para-aortic Nodes Number Positive SSF 5-Corpus</li> <li>○ Para-aortic Nodes Number Examined SSF 6-Corpus</li> <li>○ CA-125 Pretreatment Value SSF1-Ovary</li> </ul>	<ul style="list-style-type: none"> <li>○ Prostate Pathological Extension SSF3-Prostate</li> <li>○ Gleason's Pattern Clinical SSF7-Prostate</li> <li>○ Gleason's Clinical Score SSF8-Prostate</li> <li>○ Gleason Pathological Pattern SSF9-Prostate</li> <li>○ Gleason Pathological Score SSF10-Prostate</li> <li>○ Gleason Tertiary Pattern SSF11-Prostate</li> <li>○ Number of Cores Positive SSF12-Prostate</li> <li>○ Number of Cores Examined SSF13-Prostate</li> <li>○ AFP Pre-Orchiectomy Range SSF7-Testis</li> <li>○ hCG Pre-Orchiectomy Range SSF9-Testis</li> <li>○ LDH Pre-Orchiectomy Range SSF10-Testis</li> <li>○ AFP Post-Orchiectomy Range SSF13-Testis</li> <li>○ hCG Post-Orchiectomy Range SSF15-Testis</li> <li>○ LDH Post-Orchiectomy Range SSF16-Testis</li> </ul>
<p>New Manual to Include ALL Site-Specific Data Items                      New Optional Prognostic Data Items Not Approved Yet                      Description of Test, Instructions and Codes</p>	

## Many New Prognostic Site-Specific Fields

113

- o HER2 ISH Dual Probe Ratio, new Draft, Breast 8<sup>th</sup> edition, CAP guidelines
- o HER2 ISH Single Probe Copy Number
- o HER2 ISH Single Probe Copy Number
- o Lymph Nodes Size of Metastasis, Head and Neck (Common SSF), SSF# 1
- o Bilirubin Pretreatment Total Lab Value, Liver, SSF #6
- o Measured Basal Diameter, Uveal Melanomas, SSF #2
- o Measured Thickness, Uveal Melanomas, SSF #3
- o Extrnodal Extension Clinical, Penis, SSF # 17
- o Extrnodal Extension Pathological, Penis, SSF # 17
- o Microvascular Density, Uveal Melanomas, SSF #13
- o Adenoid Cystic Basaloid Pattern, Lacrimal Gland, SSF #6
- o Circumferential or Radial Resection Margin, Colon and Rectum, SSF #6
- o Oncotype Dx Recurrence Score-Invasive, Draft, Breast 8<sup>th</sup> edition, CAP guidelines
- o Oncotype Dx Recurrence Score-DCIS, Draft, Breast 8<sup>th</sup> edition, CAP guidelines
- o Oncotype Dx Risk Level-Invasive, Draft, Breast 8<sup>th</sup> edition, CAP guidelines
- o Oncotype Dx Risk Level-DCIS, Draft, Breast 8<sup>th</sup> edition, CAP guidelines
- o Isolated Tumor Cells (ITC) in Regional Lymph Node(s)/Merkel Cell Skin, SSF #18
- o Profound Immune Suppression, Merkel Cell Skin, SSF #22
- o Microsatellite Instability, Colon and Rectum, SSF #7
- o KRAS, Colon and Rectum, SSF #9
- o Kidney Tumor Extension, Kidney, SSF#1
- o Major vein Involvement, Kidney, SSF#2
- o Ipsilateral Adrenal Gland Involvement, Kidney, SSF#3
- o Sarcomatoid Features, Kidney, SSF#4
- o JAK2, Heme Retic, SSF# 1

## Many New Treatment Data Items

114

**Radiation**

Phase I Radiation Primary Treatment Volume (length 2)

Phase I Radiation to Draining Lymph Nodes (length 2)

Phase I Radiation Treatment Modality (length 2)

Phase I Radiation External Beam Planning Technique (length 2)

Phase I Dose Per Fraction (Session) (length 3)

Phase I Number of Fractions (Sessions) (length 3)

Phase I Total Dose (length 6)

Phase II Radiation Primary Treatment Volume (length 2)

Phase II Radiation to Draining Lymph Nodes (length 2)

Phase II Radiation Treatment Modality (length 2)

Phase II Radiation External Beam Planning Technique (length 2)

Phase II Dose Per Fraction (Session) (length 3)

Phase II Number of Fractions (Sessions) (length 3)

Phase II Total Dose (length 6)

Phase III Radiation Primary Treatment Volume (length 2)

Phase III Radiation to Draining Lymph Nodes (length 2)

Phase III Radiation Treatment Modality (length 2)

Phase III Radiation External Beam Planning Technique (length 2)

Phase III Dose Per Fraction (Session) (length 3)

Phase III Number of Fractions (Sessions) (length 3)

Phase III Total Dose (length 6)

Number of Phases of Radiation Treatment to this Volume (length 2)

Radiation Discontinued Early (Length 2)

Total Dose (length 6)

### CONVERSION Required

STORE		STORE Code	Definition
FORDS Codes	00	00	No Radiation Treatment
	21	01	External beam, photons, low energy
	22, 23, 24, 25, 26, 27, 31, 41, 42, 43	02	External beam, photons, megavoltage
	40	03	External beam, protons
	28	04	External beam, electrons
	30	05	External beam, neutrons
	20	06	External beam, carbon ions
	29	09	External beam, NOS
	31	10	Brachytherapy, intracavitary, LDR
	32	11	Brachytherapy, intracavitary, HDR
	33	12	Brachytherapy, interstitial, LDR
	34	13	Brachytherapy, interstitial, HDR
	44	14	Brachytherapy, electronic
	50	19	Brachytherapy, NOS
	57*	20	Radioisotopes, Radium-222
	61	21	Radioisotopes, Strontium-90
	62	22	Radioisotopes, Strontium-90
	55, 60	29	Radioisotopes, NOS
	98	98	Other, NOS
	99	99	Unknown

## FORDS to StORE Code Conversions

115

FORDS Code	Label	STORE Code	STORE Code
00	No radiation treatment	00	00
01	Neck	01	01
02	Head and neck	02	02
03	Brain (NOS)	03	03
04	Brain (limited)	04	04
05*	Head and neck (NOS)	05	05
06*	Head and neck (limited)	06	06
07	Kidney	07	07
08	Stomach	08	08
09	Pharynx	09	09
10	Chest (not head)	10	10
11	Lung (limited)	11	11
12	Head/neck	08	08
13	Stomach	08	08
14	Liver	08	08
15	Pancreas	08	08
16	Kidney	07	07
17	Kidney (NOS)	07	07
18	Breast	05	05
19	Breast lymph nodes	05	05
20	Chest wall	05	05
21	Chest wall lymph nodes	05	05
22	Head, face, neck	02	02
23	Limited extended field	02	02
24	Spine	01	01
25	Head	02	02
26	Blbs	03	03
27	Blb	04	04

Old Code	New Code	Label
00	00	No radiation treatment
01	01	Neck lymph node regions
02	02	Thoracic lymph node regions
03	03	Neck and thoracic lymph node regions
04	04	Head/Cherneck lymph node regions
05	05	Abdominal lymph nodes
06	06	Other lymph nodes
07	07	Abdominal and pelvic lymph nodes
08	08	Lymph node region, NOS
09	09	Eye/ear/nose/throat
10	10	Eye/ear/nose/throat
11	11	Orbitary
12	12	Brain
13	13	Brain (limited)
14	14	Retinal/vein
15	15	Retinal/vein
16	16	Neck/face/ear
17	17	Neck/face/ear
18	18	Neck/face/ear
19	19	Neck/face/ear
20	20	Neck/face/ear
21	21	Neck/face/ear
22	22	Neck/face/ear
23	23	Neck/face/ear
24	24	Neck/face/ear
25	25	Neck/face/ear
26	26	Neck/face/ear
27	27	Neck/face/ear
28	28	Neck/face/ear
29	29	Neck/face/ear
30	30	Lung or bronchus
31	31	Mesothelium
32	32	Pharynx

## 2018 Solid Tumor Rules

116

- Text Only – no flowchart or matrix
- Updates to Existing Solid Tumor Rules
- Takes into account problems from 2007 MPH Rules
- Takes into account WHO Classification Updates
- Takes into account new WHO Classification, 4<sup>th</sup> ed.

## 2018 Solid Tumors Database

117

- Genetics Data & Biomarkers
- Treatment(s)
- Abstractor Notes
- Signs & Symptoms
- Diagnostic Exams
- Recurrence & Metastasis
- Epidemiology & Mortality

## STDB Example: Metaplastic Ca

NATIONAL CANCER INSTITUTE  
SEER

Name  
Metaplastic carcinoma  
ICD-O-3 Morphology  
8575.9 (Behavior 2001 and later)

Reportable  
for cases diagnosed 2001 and later

**Help me code for diagnosis year: 2001 and later**

Site Category  
Breast

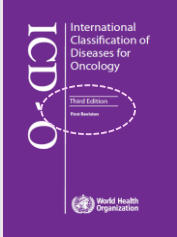
Definition  
Metaplastic carcinoma encompasses a group of neoplasms characterized by differentiation of the neoplastic epithelium into squamous cells and/or mesenchymal-looking elements, including but not restricted to spindle, chondroid, osseous, and rhabdomyoid cells. These neoplasms may be either entirely composed of metaplastic elements, or a complex admixture of carcinoma and metaplastic areas.

Differential diagnosis:  
 • Myoepithelial carcinoma: may have ducts with prominent myoepithelial cells at periphery, diffusely S100+  
 • Myofibroblastic tumors  
 • Phyllodes tumor  
 • Primary breast sarcoma: no epithelial elements or keratin+ elements

CANCER MOONSHOT

## ICD-O-3 Code & Behavior Updates

119



<http://codes.iarc.fr/usingicdo.php>

**WHO Classification of Tumors  
New or Revised Since 2010**

- Digestive System
- Breast (2012)
- Soft Tissue and Bone (2013)
- Female Reproductive Organs (2014)
- Lung, Pleura, Thymus & Heart (2015)
- Urinary System & Male Genital (2016)
- Central Nervous System (2016 revision)
- Hematopoietic & Lymphoid (2016 revision)
- Head & Neck (2017)

## ICD-O-3 Code & Behavior Updates

120

International Agency for Research on Cancer  
World Health Organization  
International Classification of Diseases for Oncology  
ICD-O-3 online

ABOUT ICD-O USING ICD-O-3 ONLINE MORPHOLOGICAL CODES TOPOGRAPHICAL CODES

You are here: Home / Using ICD-O-3 online

ICD-O

INTERNATIONAL CLASSIFICATION OF DISEASES FOR ONCOLOGY

ICD-O-3 ONLINE

USING ICD-O-3 ONLINE

The International Classification of Diseases for Oncology (ICD-O) is a dual classification, with coding systems for both topography and morphology.

The topography code describes the anatomical site of origin of the neoplasm and, while it uses the same categories as in the neoplasm section of Chapter II of the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), some of the individual codes are different. The code always has a prefix of "C," followed by a three-digit number that indicates the site (two digits) and the subsite (one digit), separated by a decimal point. For example, in C18.4, the C18 indicates that the site is in the colon and the 4 indicates that the subsite is the transverse colon.

The morphology code describes the characteristics of the tumor itself, including its cell type and biological activity. The code is composed of four digits that indicate the cell type or histology and one digit that indicates the behaviour. The first four digits are separated from the last (behaviour) digit by a forward slash (/). The behaviour digit can be 0 (benign), 1 (in situ/intraepithelial), 2 (carcinoma in situ), 3 (in situ, primary site), 4 (in situ, metastatic site), or 9 (in situ, uncertain whether primary or metastatic site).

## ICD-O-3 Code & Behavior Updates

121

International Agency for Research on Cancer  
World Health Organization  
International Classification of Diseases for Oncology  
ICD-O-3 online

ABOUT ICD-O USING ICD-O-3 ONLINE HISTORICAL CODES TOPOGRAPHICAL CODES

ICD-O-3, I (2013)  
ICD-O-3 (2000)  
Updates 2013

INTERNATIONAL CLASSIFICATION OF DISEASES FOR ONCOLOGY INCLUDING UPDATES AS AT SEP 04 2013, APPROVED BY THE IARC/WHO COMMITTEE FOR ICD-O-3

8000/0 Neoplasm, benign  
Tumor, benign  
Unclassified tumor, benign

8000/1 Neoplasm, uncertain whether benign or malignant  
Neoplasm, NOS  
Tumor, NOS  
Unclassified tumor, uncertain whether benign or malignant  
Unclassified tumor, indefinite malignancy

8000/2 Neoplasm, malignant

## ICD-O-3 Code & Behavior Updates

122

- 24+ NEW proposed ICD-O Codes
- 16+ Changes to Behavior Codes
- 54+ Preferred Names / Alternate Names
- Previously non-reportable GI terms now Reportable
- Thymoma – no longer must state “malignant”

## ICD-O-3 Updates - Breast

123

Change	Cod	Description
New behavior code	8507/3	Invasive micropapillary carcinoma
New behavior code	8983/3	Adenomyoepithelioma with carcinoma
New code	8519/2	Pleomorphic lobular carcinoma in situ
New behavior code	8460/2	Serous borderline tumor-micropapillary variant/
New behavior code	8460/2	Non-invasive low grade serous carcinoma
New related term	8503/2	Intraductal papilloma with ductal carcinoma in situ
New code	8509/2	Solid papillary carcinoma in-situ
New code	8509/3	Solid papillary carcinoma with invasion
New related term	8503/3	Invasive papillary carcinoma

## ICD-O-3 Updates - Lung

124

Change	Cod	Description
New related term	8551/3	Acinar adenocarcinoma
New behavior code	8250/2	Minimally invasive adenocarcinoma, non-mucinous
New code	8257/3	Minimally invasive adenocarcinoma, mucinous
New code	8022/3	NIJ carcinoma
New behavior code	8842/3	Pulmonary Myxoid sarcoma with EWSR1-CREB1 translocation
New code	9086/3	Germ cell tumor with associated hematological malignancy
New related term	8250/3	Lepidic adenocarcinoma
New related term	8253/3	Invasive mucinous adenocarcinoma
New related term	8254/3	Mixed invasive mucinous & non-mucinous adenocarcinoma
New term/behavior	8410/2	Adenocarcinoma in-situ, non- mucinous
New term/behavior	8253/2	Adenocarcinoma in-situ, mucinous
See comment	8140/2	Adenocarcinoma in-situ
New code	8265/3	Micropapillary adenocarcinoma
New related term	8580/3	Metaplastic thymoma
New related term	8581/3	Type A thymoma
New related term	8582/3	Type AB thymoma
New related term	8583/3	Type B1 thymoma
New related term	8584/3	Type B2 thymoma
New related term	8585/3	Type B3 thymoma
New related term	8580/3	Sclerosing thymoma

## Updates to Reportable Cancers List

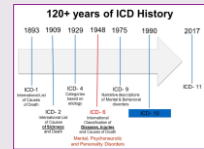
125

Code	Term
8507/3	Invasive micropapillary carcinoma
8983/3	Adenomyoepithelioma with carcinoma
8460/3	Serous borderline tumor-micropapillary variant Non-invasive low grade serous carcinoma
8441/2	Serous tubal intraepithelial carcinoma
8380/2	Atypical hyperplasia/Endometrioid intraepithelial neoplasia
8825/3	Low-grade myofibroblastic sarcoma
8842/3	Ossifying fibromyxoid tumor, malignant
8811/1	Myxoinflammatory fibroblastic sarcoma (MIFS)
8250/2	Minimally invasive adenocarcinoma, non-mucinous
8842/3	Pulmonary Myxoid sarcoma with EWSR1-CREB1 translocation
8311/3	Hereditary leiomyomatosis & RCC-associated RCC MIT Family translocation renal cell carcinoma (Important note: this histology IS NOT a synonym for hereditary leiomyomatosis & RCC assoc RCC also coded 8811/3)
8071/2	Differentiated penile intraepithelial neoplasia
8410/2	Differentiated-type vulvar intraepithelial neoplasia
8253/2	Adenocarcinoma in-situ, non-mucinous
8620/3	Adult granulosa cell tumor
9341/3	Clear cell odontogenic carcinoma
9302/3	Ghost cell odontogenic carcinoma

## ICD-11 and ICD-O-4

126

- ICD-10 is nearly 30 years old (1989 release)
- ICD-11 early release in 2017 (beta version)
- ICD-11 used for Death Certificates in 2018 (NCHS)
- ICD-11 uses ICD-10 as foundation + more detail
- 100% electronic will replace paper version
- ICD-O-4 in review starting in 2017
- ICD-O-4 will be compatible with ICD-11
  - Topography
  - Morphology
  - Laterality
  - Grade
  - Stage
  - Genetic Profile
  - More



## AJCC 8th ed. Implementation

127

- AJCC Staging Manual, 8<sup>th</sup> edition
- New Required for Staging Site Specific Fields
- New Format for ALL Staging Site Specific Fields
- AJCC TNM Electronic Tools - API
- AJCC TNM API Availability, Licensing and Fees

## Many New Staging Data Items

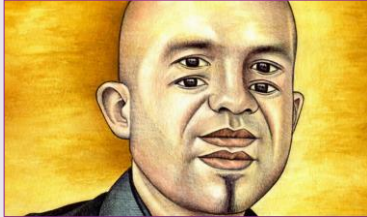
128

- Summary Stage 2018 (SS2018) – Direct-Coded Stage
- New EOD Coding System - SEER EOD 2018 Data Items
  - Tumor Size Clinical
  - Tumor Size Pathologic
  - EOD Primary Tumor
  - EOD Regional Nodes
  - EOD Mets
- New Site-Specific Data Items – old SSFs + new SSFs
- New Derived Stage Data Items
  - Derived SS2018
  - Derived EOD TNM 8<sup>th</sup> T
  - Derived EOD TNM 8<sup>th</sup> N
  - Derived EOD TMM 8<sup>th</sup> M
  - Derived EOD TNM 8<sup>th</sup> Stage Group – result is a mixed stage



## EDITS v18

129



## Medicare Beneficiary Identifier (MBI)

130

**SUBJECT: Social Security Number Removal Initiative (SSNRI)**

The Centers for Medicare & Medicaid Services (CMS) is issuing this Informational Bulletin to inform states about the SSNRI. Congress passed the Medicare Access and CHIP Reauthorization Act (MACRA) of 2015 (PL 114-10) on April 16, 2015. Section 501 of MACRA requires CMS to remove Social Security Numbers from Medicare ID cards and replace existing Medicare Health Insurance Claim Numbers (HICNs) with a Medicare Beneficiary Identifier (MBI). The MBI will be a randomly generated identifier that will not include a social security number or any personally identifiable information (PII). This step is being taken to minimize the risk of identity theft for Medicare beneficiaries and reduce opportunities for fraud. To comply with this statutory requirement, starting in early 2018, CMS will issue new Medicare cards with an MBI to approximately 60 million Medicare beneficiaries, including Dual Eligibles. A HICN will still be assigned to each Medicare beneficiary will still be used for internal data exchanges between CMS and the states, but the new MBI must be used in all interactions with the beneficiary, the provider community and all external partners.

## 2016 Jean Byers Award

- 2016 award for 2014 data awarded in 2017!
- Criteria for the award:
  - All deadlines met with respect to the 2014 cancer case admissions
    - a. 2014 Annual Caseload Submission Deadline – June 30, 2015
    - b. Consolidated Follow Back Deadline – October 15, 2016
    - c. No more than 5% (or 35 cases, whichever number is greater) of the 2014 cancer case admissions reported to FCDS within 2 months (60 days) following the June 30, 2015 deadline.
    - d. No more than 10% of the 2014 cancer case admissions reported to FCDS within 12 months following the June 30, 2015 reporting deadline.

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## 2016 Jean Byers Award

- Jean Byers Award: 91 Recipients
- Pat Strait Award: 211 Recipients

GREAT JOB!!!!



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## 2016 Jean Byers Award

- Special Recognition
  - These facilities have won the award all 19 years
  - 2736 Baptist Hospital of Pensacola
  - 6203 Edward White Hospital

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### 2017-2018 Education & Training Plan

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**FCDS ANNUAL CONFERENCE**  
**ORLANDO, FLORIDA**  
 7/26/2017

**STEVEN PEACE, CTR**







- SS2018 & EOD
- Gene Testing
- Biomarkers
- CAP Templates

- ICD-O-3 Updates
- MPH Rules Updates
- AJCC 8<sup>th</sup> edition
- SSF Changes

## 2017-2018 Education & Training Plan

135

- FCDS Annual Meeting
- FCDS Webcast Schedule
  
- NAACCR Webinar Schedule
- NAACCR Webinar Host Sites
- NAACCR CTR Prep Webinars
  
- AJCC TNM 8<sup>th</sup> Edition & SSFs
- 2018 ICD-O-3 Updates for United States
- SEER 2018 MPH Rules - Solid Tumors
  
- FLCCSC Transition
  - FCDS On-Line Educational Courses
  - FCDS Abstractor Code Testing
  - FCDS Webcast Series



**FCDS Staff**  
 In-Services for ALL Field  
 Coordinators and  
 Quality Control Staff



## FCDS Annual Meeting

136





## NAACCR CTR Prep Webinars

141

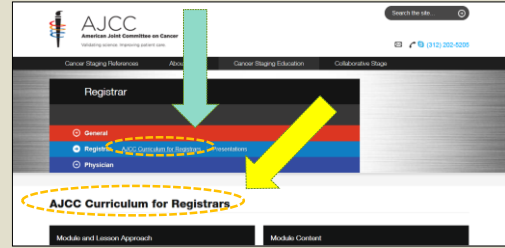
- The NAACCR CTR Exam Preparation & Review Webinar Series offers online instruction with experienced faculty. The course includes eight 2-hour sessions, sample CTR Exam and a follow-up post exam session. All sessions are recorded and available for playback 24/7 via Drop Box.
- Individual Subscription for the Series is \$400 – includes “live” sessions
- FCDS picks up the \$400 fee for any Florida candidate CTR
  - This is NOT a Beginner Abstracting Course
  - Candidate CTRs must be planning to write the CTR Exam
  - Florida candidate CTRs must view recordings as part of agreement
  - This allows you to watch each session whenever time allows
  - All Course Materials including Sample CTR Exam are included
  - Contact and Feedback from Course Instructors is included
  - Next CTR Exam Prep and Review Series begins in mid-August



## AJCC TNM 8<sup>th</sup> ed. – Webinars & Self-Instruction

142

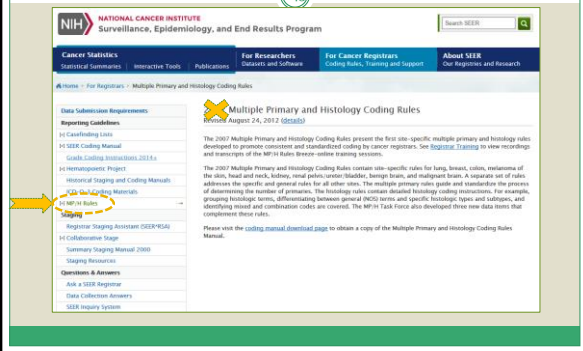
AJCC Manual Chapter and Cancer-Specific Training Webinars – Schedule TBA



<https://cancerstaging.org/CSE/Registrar/Pages/AJCC-Curriculum.aspx>

## SEER Instruction – 2018 Solid Tumor Rules

143





## FLccSC Transition

144




- Direct Access through FCDS IDEA
- Direct Interface to FCDS IDEA for FCDS Abstractor Code
- FCDS Abstractor Code Test will produce a Certificate
- All New plus Updated ABC Course will produce Certificates
- CEU Tracking System will be replaced by Certificates
- FCDS Webcast CEUs – 5 Question Quiz For Certificate
- Questions will go into the FCDS Abstractor Code Test Q&A's
- Major Revisions to ABC Course for 2018 Standards Updates

## FCDS Abstractor Code Test Question Bank

Review of ALL Q&A and References  
Transition FCDS Abstractor Code Test to FLccSC Learning



**Q&A Removed – 2007 MPH Rules, AJCC 7th ed., SS2000**  
**Q&A Added – ICD-O-3 Updates, 2018 MPH Rules, AJCC TNM 8th ed.**  
**SSFs Q&A Added - New Biomolecular and Genetic Tests**

## HOW TO USE THE AJCC CANCER STAGING MANUAL, 8TH EDITION


T8	T1	T2	T3	T4
N0	Stage I			
N1	Stage II			
N2	Stage IIIa			
N3	Stage IIIb			
N4	Stage IV			


FCDS Annual Educational Conference

Orlando, Florida

July 28, 2017


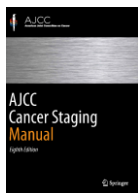
Steven Peace, CTR






## Purchase and Ordering Information

- AJCC Cancer Staging Manual – 8th edition, 2017
- COST: \$119.99
- ISBN: 978-3-319-40617-6
- 1429 pages
- 512 illustrations
- 187 color illustrations
- Required - Florida Mandate
  - FCDS will not purchase
  - Facility may purchase
  - Individual may purchase
- <https://cancerstaging.org>
- <http://springer.com>
- 1-800-SPRINGER

## Intro to AJCC Staging Manual, 8th ed.

- Enhanced Chapter 1 – Principles of Cancer Staging
- Enhanced Descriptions of Staging Rules – Chapter 1
  - Timing for Staging
  - Clinical Staging Criteria and General Rules
  - Pathologic Staging Criteria and General Rules
  - Rules for Assigning T, N, and M Category Codes
  - Rules for Determining Prognostic Stage Group
  - Timing and Criteria for Post-Therapy Staging (yc/yp)
- 12 new staging systems
- 83 total chapters defined by site/subsite and specific histologies
- New Site-Specific Fields – no more “factors” – but similar instructions and codes



# Intro to AJCC Staging Manual, 8<sup>th</sup> ed.

- New Sections or Features within Chapters
  - AJCC Levels of Evidence for Changes to Staging Criteria
  - Guidance on the Use of Imaging to Evaluate Stage for Each Chapter
  - Prognostic Factors
    - Factors Required to Assign Prognostic Stage Group
    - Factors Recommended for Managing Patient Care
    - Emerging Factors
  - Risk Assessment Models
  - Clinical Stratification Recommendations
- 
- Chapter-Specific Histology Codes – No longer uses range of acceptable codes –
  - Histology Code List updated with 2018 MPH Rules to ensure all new for 2018 histology codes are included in appropriate chapter(s) – and to keep up with WHO Classifications



# AJCC 8<sup>th</sup> Edition Staging Rules – Chapter 1

- Entire 30 pages devoted to Staging Rules and is Table-Driven with User Notes
- Definitions are included for vocabulary related to cancer staging
- Clarification on Use of "X", <blank> and Zero (0)
- Clarification on Use of Clinical & Pathological Stage Descriptors
- Clarification on "Response to Neoadjuvant Therapy"
- Explanation for How to Apply Tables to Assign New Prognostic Stage Groups
- AJCC will be hosting webinar(s) on Key Elements of Chapter 1 – General Rules
- 2018 FCDS Abstract Code Test Absolutely WILL Have Questions from Chapter 1



# AJCC 8<sup>th</sup> Edition Staging Rules - PDF

**GENERAL STAGING CONVENTIONS**

- Review: Use of abbreviations, inclusion of tables from the date of cancer diagnosis until the start of subsequent treatment, or until the specific treatment is complete
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings

**PROGNOSTIC FACTOR TABLES**

- Review: Review of evidence for prognostic factors, and how to use them in staging
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings

**RISK ASSESSMENT MODEL TABLES**

- Review: Review of evidence for prognostic factors, and how to use them in staging
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings

# AJCC 8<sup>th</sup> Edition – Staging Clarifications

**GENERAL STAGING CONVENTIONS**

- Review: Use of abbreviations, inclusion of tables from the date of cancer diagnosis until the start of subsequent treatment, or until the specific treatment is complete
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings

**PROGNOSTIC FACTOR TABLES**

- Review: Review of evidence for prognostic factors, and how to use them in staging
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
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**RISK ASSESSMENT MODEL TABLES**

- Review: Review of evidence for prognostic factors, and how to use them in staging
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings
- Examples: clinical descriptions for clinical, histologic, pathologic, physical, and imaging findings

## General Chapter Outline and Contents

AJCC Cancer Staging Manual, 8 <sup>th</sup> Edition – Chapter Outline	
Chapter Summary	Summary of major changes and applicable disease <ul style="list-style-type: none"> <li>Cancers Requiring This Staging System</li> <li>Cancers Not Requiring This Staging System</li> <li>Categories of Staging</li> <li>ICD-O-3 morphology codes</li> <li>ICD-O-3 histology codes</li> </ul>
Introduction	General information on this disease site, such as background, trends, and clinical discussion
Anatomy	<ul style="list-style-type: none"> <li>Primary Sites</li> <li>Regional lymph Nodes</li> <li>Metastatic Sites</li> </ul>
Index for Classification	<ul style="list-style-type: none"> <li>Overall</li> <li>Staging</li> <li>Histological</li> </ul>
Prognostic Factors	Indication and discussion of non-TNM prognostic factors reported in each disease <ul style="list-style-type: none"> <li>Prognostic Factors Required for Stage Grouping</li> <li>Additional Factors Recommended for Clinical Care</li> <li>Grouping Factors for Clinical Care (TNM Only)</li> </ul>
Risk Assessment Methods	Prognostic and predictive models validated by the AJCC's cooperative efforts for inclusion of risk models for individualized prognosis for practice or practice models <ul style="list-style-type: none"> <li>Models are available at <a href="http://www.aajcc.org/staging">www.aajcc.org/staging</a></li> </ul>
Recommendations for Clinical Trial Stratification	Recommendations for use by participating centers entering a clinical trial (work in progress)
Definitions of AJCC TNM	<ul style="list-style-type: none"> <li>Definition of Primary Tumor (T)</li> <li>Definition of Regional lymph Nodes (N)</li> <li>Definition of Distant Metastasis (M)</li> </ul>
AJCC Prognostic Stage Groupings	Grouping of T, N, M, and any additional prognostic subgroups
ICD-O-3 Code Collection Variables	Prognostic variables recommended for collection by cancer registries
ICD-O-3 Code 20	Grouping criteria to be used
ICD-O-3 Code 21	Directions for coding of morphological types
Special ICD-O-3	Special data are the basis for prognostic, stage, and prognostic groups
Revisions	Additional figures, illustrations, and/or revised text of disease

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## Importance of Cancer Genomics - NCI

- Cancer is a genetic disease.**
- Cancer genomics research contributes to precision medicine by defining cancer types and subtypes based on their genetics and identify targets for new medicines
- "targeted therapies" specifically combat characteristics of cancer cells that are different from normal cells of the body. This makes them less likely to be toxic for patients compared to other treatments such as chemotherapy and radiation that can kill normal cells.
- How do "targeted therapies" work?
  - Inhibit enzymes that trigger the abnormal growth and survival of cancer cells
    - Imatinib (Gleevec) inhibits overactivity of protein Bcr-ABL tyrosine kinase in leukemia patients
  - Block aberrant gene expression characteristic of cancer cells
    - Trastuzumab (Herceptin) controls hyperactive signaling pathway (HER2 tyrosine kinase) – breast
  - Halt molecular signaling pathways that are in overdrive in cancer cells
    - Erlotinib (Tarceva) and gefitinib (Iressa) both restrict activation of a protein (EGFR) in lung cancers

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## Site-Specific Fields Required for Staging

- Each Chapter includes the Site-Specific Fields Required for Staging (if any)
  - You MUST also document ALL Site-Specific Field Values/Results in TEXT**
  - You MUST look for these tests and results – they are really important!**
  - Analytic Cases MUST include valid entries in these critical fields**
  - Non-Analytic Cases SHOULD include valid entries as available**
  - PCDS will monitor overuse of 999 default values**
  - Include same tests as CS SSFs for some cancers
  - Instructions and Codes may differ from CS
  - Field Length and Location of Decimal
  - Site-Specific Fields Manual Pending
  - Other – age, LVI, LN +/-exam, T Size
- HER2, MSI, ER/PR, CA 125, PSA, Gleason, B Symptoms, CEA, Ki-67 Index, Immuno-Phenotype, Mitotic Count, Specified Grade, CytoGenetics
- REQUIRED**

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## Site-Specific Fields – Emerging Factors

**CAUTION**

Two markers #17 (different panels)

Identification of and Testing for Next Generation Biomarkers, Genetic Tests and Multi-Gene Profiles and Establishing Data Collection Standards for Emerging SSFs

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## Determining Prognostic Stage Groups

- **MUST MEET THE CRITERIA FOR STAGING TO BE STAGED**
- Verify ALL Required Variables Have Been Coded
- Clinical Prognostic Stage Group
- Pathological Prognostic Stage Group
- Response to Neoadjuvant Therapy (ypTyc)
- Proper Use of Clinical and Pathological Descriptor Fields

Table 8. Examples of Records in Breast Cancer Staging Using Biomarkers and Descriptors

T	N	M	C	HER2	ER	PR	ADJUVANT THERAPY (CLINICAL PROGNOSTIC STAGE GROUP)	EXPERIMENTAL THERAPY (PATHOLOGICAL PROGNOSTIC STAGE GROUP)
1	0	0	1	-	-	-	NA	NA
1	0	0	0	-	-	-	NA	NA
1	1	0	1	+	-	-	NA	NA
2	0	0	0	NA	-	-	NA	NA
1	1	0	0	NA	-	NA	NA	NA
1	2	0	1	+	-	-	NA	NA

Abbreviations: T, primary T; N, primary N; M, primary M; C, primary C; HER2, human epidermal growth factor receptor 2; ER, estrogen receptor; PR, progesterone receptor; NA, not available.

## Helpful Information

<https://cancerstaging.org>

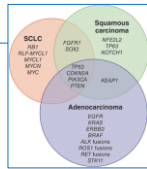


## NEW SITE-SPECIFIC FIELDS "REQUIRED FOR STAGING" AJCC 8TH ED.

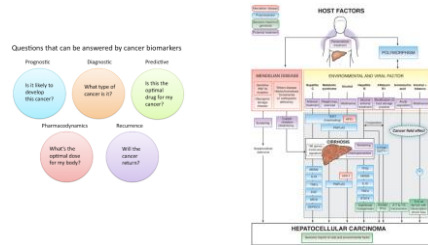
T	N	M	C	HER2	ER	PR
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA



FCDS Annual Educational Conference  
Orlando, Florida  
July 28, 2017  
Steven Peace, CTR



## Required/Clinically Relevant/Investigational











In 2016, the Food and Drug Administration approved:

1st novel targeted cancer therapies

First liquid biopsy diagnostic test

First new generation sequencing diagnostic test

## RECENT DEVELOPMENTS IN CANCER DIAGNOSIS AND TREATMENT

FCDS Annual Educational Conference  
Orlando, Florida  
July 28, 2017

Steven Peace, CTR

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## Outline

- Revised Common Rule and Cancer Surveillance
- 2017 Incidence & Mortality Estimates
- AACR Cancer Progress Report 2016
- National Toxicology Program - 14th Report on Carcinogens
- ASCO 2017 Clinical Cancer Advances
- NCCN Annual Report 2016 – At Our Core
- Explosion of Data / Fragmented Data Sources
- CAP Solid Tumor Selected Tests by Tumor Type
- New Diagnostic Tools & Techniques
- Next Generation Genomic Sequencing
- Next Generation Immuno & Precision Therapies
- Questions

**The Common Rule**

- Research ethics
- Data must be accessible
- Access to participant data
- Informed consent
- Occasional consent
- Researcher liability
- Protects vulnerable populations & research integrity

**Emerging Technologies Are More Complex and Tumor-Specific**

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## ASCO 2017 Clinical Cancer Advances

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## Financial Toxicity and Cancer Treatment

**Financial Toxicity and Cancer Treatment (PDQB)-Health Professional Version**

Go to Patient Version

**Financial Toxicity Associated with Cancer Care-Background and Prevalence**

- Introduction
- Background
- Etiology and Risk Factors
- Prevalence
  - Prevalence of high out-of-pocket costs
  - Prevalence of productivity loss
  - Prevalence of cancer depletion and medical debt
  - Incidence and prevalence of bankruptcy
  - Prevalence of financial stress, distress, or worry
  - Prevalence of financial hardship as a composite measure

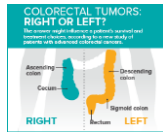
Source: <https://www.cancer.gov/about-cancer/managing-care/financial-toxicity-hp-pdf>

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## Colon Tumor Location and Treatment

Median Overall Survival by Tumor Location and Therapy

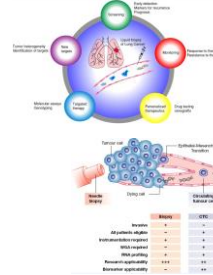
	Left-Sided Tumors	Right-Sided Tumors
All Patients	33.3 months	39.4 months
Patients Treated with Cetuximab	36 months	36.7 months
Patients Treated with Bevacizumab	34.4 months	24.2 months



Although patients whose tumors originated in the left colon lived substantially longer after treatment than patients whose tumors originated in the right colon, the survival improvement for patients treated with cetuximab was more pronounced. And patients with right-sided tumors had better outcomes when treated with bevacizumab.

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## Liquid Biopsy



- Liquid biopsy is a minimally invasive technology for detection of molecular biomarkers without the need for costly or invasive procedures.
- Circulating cancer cells or traces of the cancer's RNA or DNA in the blood can give clues about which treatments are likely to work for a patient.
- Circulating nucleic acids are protected by extracellular micro-vesicles, mainly exosomes.
- Exosomes are cell-derived vesicles that are present in many and perhaps all eukaryotic fluids, including blood, urine, and cultured medium of cell cultures.
- Exosomes maintain specified "compartments" of micro and macro molecules. Cancers create an expulsion of key proteins and microRNAs resulting in mis-expression of intracellular molecules which in turn interrupt cancer's intra and extra cellular communications pathways

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## Update on NCI MATCH Trial & SubProtocols (Molecular Analysis for Therapy Choice)

Sub Protocol	MOA/Target	Population	Treatment
BL0110 - A	EGFR inhibition	EGFR amplified	Afatinib 40 mg QD PO
BL0110 - B	HER2 activation	HER2 amplified	Afatinib 40 mg QD PO
BL0110 - C	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - D	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - E	TKI inhibition	TKI amplified	Afatinib 40 mg QD PO
BL0110 - F	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - G	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - H	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - I	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - J	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - K	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - L	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - M	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - N	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - O	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - P	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Q	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - R	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - S	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - T	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - U	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - V	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - W	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - X	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Y	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Z	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO

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BL0110 - K	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - L	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - M	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - N	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - O	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - P	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Q	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - R	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - S	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - T	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - U	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - V	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - W	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - X	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Y	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO
BL0110 - Z	TKI inhibition	TKI amplified	Cetuximab 20 mg BID PO

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NCRA CEU 2017-2018  
Total Conference CEU = 9.5 hours  
Category A CEU = 3.75 hours

## Questions



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