Florida Statewide Cancer Registry
Florida Cancer Data System

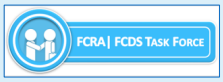
2022-2023 FCDS Educational Webcasts

Summary of 2022 FCDS Annual Meeting
Review of 2022 Florida Cancer Reporting Requirements

Steven Peace
9/22/2022

CTR

CTR



National Childhood Cancer Registry

The Childhood Cancer STAR Project

1

CDC & Florida DOH Attribution

2

FCDS

"Funding for this conference was made possible (in part) by the Centers for Disease Control and Prevention. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services, nor does the mention of trade names, commercial practices, or organizations imply endorsement by the US Government."

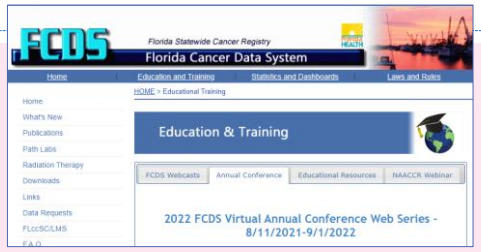
CDC Centers for Disease Control and Prevention

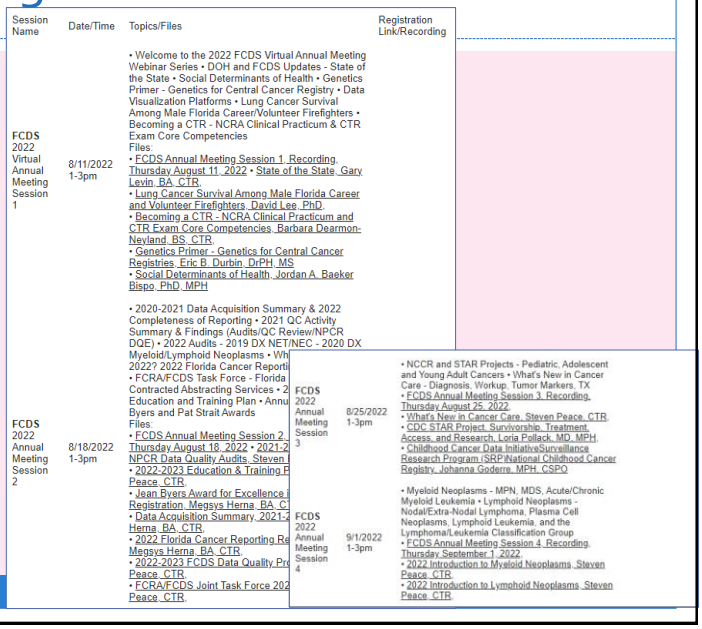
Florida HEALTH

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 2022 Virtual FCDS Annual Conference and the 2022-2023 FCDS Webcast Series under state contract COHAW. 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.

2

All Slides and All Recordings Available on FCDS Website





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Again, this is only a presentation of highlights

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Florida Statewide Cancer Registry
Florida Cancer Data System

Welcome to Session I of the FCDS Annual Meeting

Session	Date/Time	Estimated Time	2022 FCDS Virtual Annual Conference - Topic	Speaker
FCDS Session 1	8/11/2022 1pm-3pm	1:00pm-1:10pm	Welcome to the 2022 FCDS Virtual Annual Meeting Webinar Series	Steven Peace, CTR/Marcia Hodge, CTR FCRA/FCDS Joint Virtual Conferences Program Co-Chairs
		1:10pm-1:30pm	DOH and FCDS Updates – State of the State	Keshia Reid, PhD - DOH Gary Levin, BA CTR - FCDS
		1:30pm-1:50pm	Social Determinants of Health	Jordan Baeker-Bispo, PhD, MPH – University of Miami
		1:50:pm-2:10pm	Genetics Primer – Genetics for Central Cancer Registry	Eric Durbin, Phd – University of Kentucky
		2:10pm-2:30pm	Data Visualization Platforms	Monique Hernandez, PhD - FCDS
		2:30pm-2:45pm	Lung Cancer Survival Among Male Florida Career/Volunteer Firefighters	David Lee, PhD – University of Miami
		2:45pm-3:00pm	Becoming a CTR – NCRA Clinical Practicum & CTR Exam Core Competencies	Barbara Dearmon, CTR – NCRA/FCRA

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FCDS Update:
The State of The State 2022

Gary M. Levin, BA, CTR
FCDS Virtual Annual Conference
8/11/2022

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2021 NAACCR Silver Certification

- Met All NAACCR Criteria for Gold Certification Except for Race
- Missed Race Criteria by .18%
- Switch to XML Caused Race Improvement Process to Fail Undetected
- NAACCR Would Not Permit Resubmission for Certification; Accepted it for Cancer in North America Dataset
- CDC/NPCR Permitted Resubmission

We Appreciate All Your Hard Work and Dedication
Hope To Be Gold Certified Again Next Year
Thank You

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2021 NPCR Registry of Distinction

National Program of Cancer Registries

2021 Registry of Distinction

DISTINCTION NPCR

The Key to Cancer Control

Awarded to

FLORIDA CANCER DATA SYSTEM

In recognition of providing complete and timely
National Program of Cancer Registries data in

2021

Vicki Benard May 16, 2022

Vicki Benard, PhD
Chief, Cancer Surveillance Branch
Division of Cancer Prevention and Control

Date

CDC U.S. Department of Health and Human Services Centers for Disease Control and Prevention

CANCER PREVENTION WORKS www.cdc.gov/cancer

NPCR NATIONAL PROGRAM OF CANCER REGISTRIES

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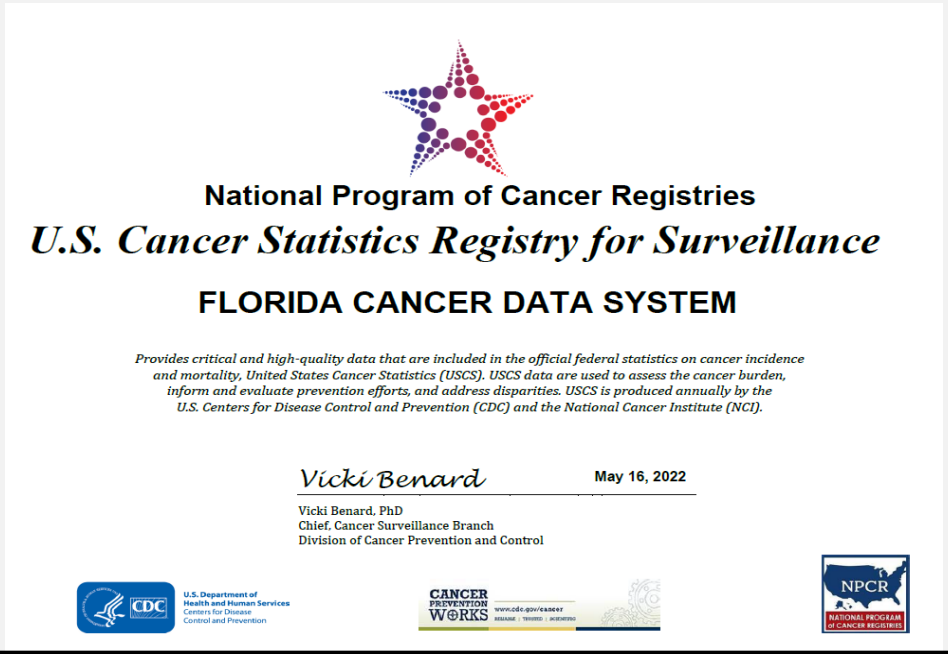
2022 U.S. Cancer Statistics Registry of Surveillance



National Program of Cancer Registries

U.S. Cancer Statistics Registry for Surveillance

FLORIDA CANCER DATA SYSTEM

Provides critical and high-quality data that are included in the official federal statistics on cancer incidence and mortality, United States Cancer Statistics (USCS). USCS data are used to assess the cancer burden, inform and evaluate prevention efforts, and address disparities. USCS is produced annually by the U.S. Centers for Disease Control and Prevention (CDC) and the National Cancer Institute (NCI).

Vicki Benard May 16, 2022

Vicki Benard, PhD
Chief, Cancer Surveillance Branch
Division of Cancer Prevention and Control

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CANCER PREVENTION WORKS www.cdc.gov/cancer

NPCR NATIONAL PROGRAM OF CANCER REGISTRIES

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FCDS Updates: Diagnosis Year 2022

Retired Data Items

- Four Tobacco Use – Cigarettes, Other Smoke, Smokeless, NOS

New Data Items Required

- Tobacco Use Smoking Status
- New SSDIs
  - Esophagus and EGJ Tumor Epicenter – Esophagus (including GE junction) Squamous
  - p16 – Cervix Uteri

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FCDS Updates: Diagnosis Year 2022

Surgery Codes - Applies to Diagnosis Year 2022+

Obsolete Surgery Codes for Colon, Rectosigmoid, Anus and Rectum

- 11 and 21 Photodynamic Therapy (PDT)
- 13 and 23 Cryosurgery
- 14 and 24 Laser Ablation
- 25 Laser Excision

Surgery Description Changes

- Remove "Wedge" from Code 30 for Rectum and Rectosigmoid
- Remove "Miles Procedure" from Rectum Code 50 and Anus Code 60
- Remove "Total Mesolectal Excision (TME)" from Rectum Code 30

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FCDS Project Highlights
NPCR Data Modernization Initiative

The FCDS had 2 to 3 Members Participating in Each Workgroup

- ePath/APHL Activities
- Self-Service Vendor/Provider On-Boarding
- eMarc Plus Cloud Computing
- Web Plus Cloud Computing
- Data Governance

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FCDS Project Highlights
National Childhood Cancer Registry

- 2021 Call for Data Ages 0-19 – Submitted 23,915 Cases for 1995-2020
- Working on Amendment - Change to Ages 0-39 for 2022 Submission
- Participate in Approved NCCR Linkage
- Participate in Monthly Calls
- Presentation on NCCR – 8/25/2022

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FCDS Project Highlights
CCRAB Florida Cancer Plan - Objective 2

- 2.2 Cancer Biology Data
- 2.3 Social Determinants of Health
- 2.4 Cancer Screening
- 2.6 Increase Data Access and Utilization

Goal To Develop Pilots To Enhance Data Collected by the FCDS
https://www.ccrab.org/cancer-plan

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FCDS Project Highlights
NAACCR Virtual Pooled Registry
Phase 1 Linkages

- Military Aviators and Aviation Support Personnel
- Childhood Cancer Survival Study
- High School and Beyond Study
- New York University Women's Health Study
- Ohio and West Virginia C8 Study
- Sister Study

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2022 FCDS Virtual Annual Conference
August 11, 2022

Social Determinants of Health

Jordan A. Baeker Bispo, PhD, MPH
Postdoctoral Scholar
Sylvester Comprehensive Cancer Center
University of Miami

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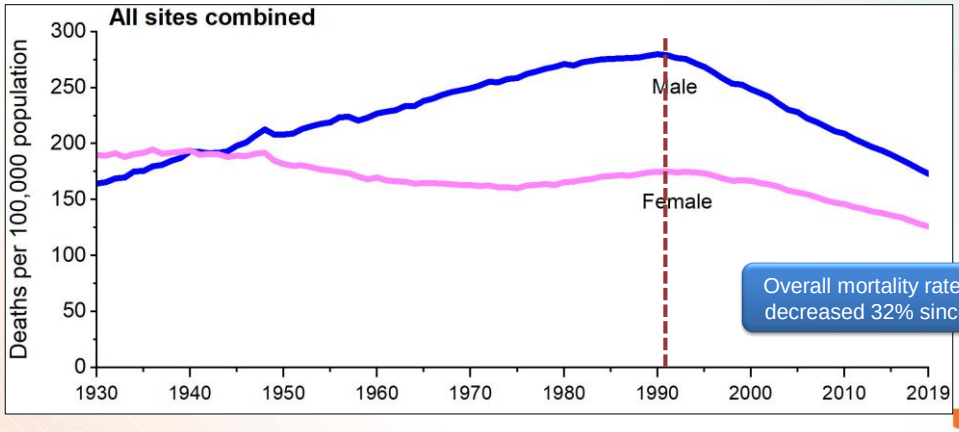
Strides in cancer control in recent decades

Trends in Age-adjusted Cancer Death Rates, US, 1930-2019



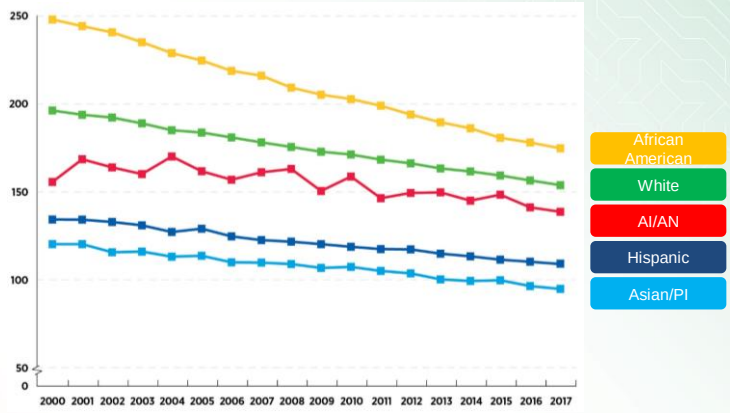
Siegel RL, Miller KD, Fuchs HE, Jemal A. Cancer statistics, 2022. CA Cancer J Clin. 2022 Jan;72(1):7-33. doi: 10.3322/caac.21708. Epub 2022 Jan 12. PMID: 35020204.

18

Despite progress, cancer disparities persist

- By race and ethnicity
- By geography
- By nativity
- By sexual orientation

Age-adjusted cancer mortality per 100,000 in the US by race



CancerDisparitiesProgressReport.org [Internet]. Philadelphia: American Association for Cancer Research; ©2022 [cited 2022 Aug 9] Available from http://www.CancerDisparitiesProgressReport.org/.

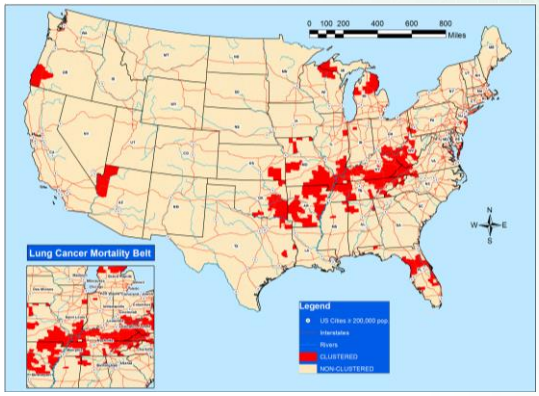
SYLVESTER COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MIAMI HEALTH SYSTEM
IN PURSUIT OF YOUR CURE.

19

Despite progress, cancer disparities persist

- By race and ethnicity
- By geography
- By nativity
- By sexual orientation

County-level lung cancer mortality clusters, contiguous United States, 2004-2014



Moore JX, Akinyemiju T, Wang HE. Pollution and regional variations of lung cancer mortality in the United States. Cancer Epidemiol. 2017 Aug;49:118-127.

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Social determinants drive many cancer disparities

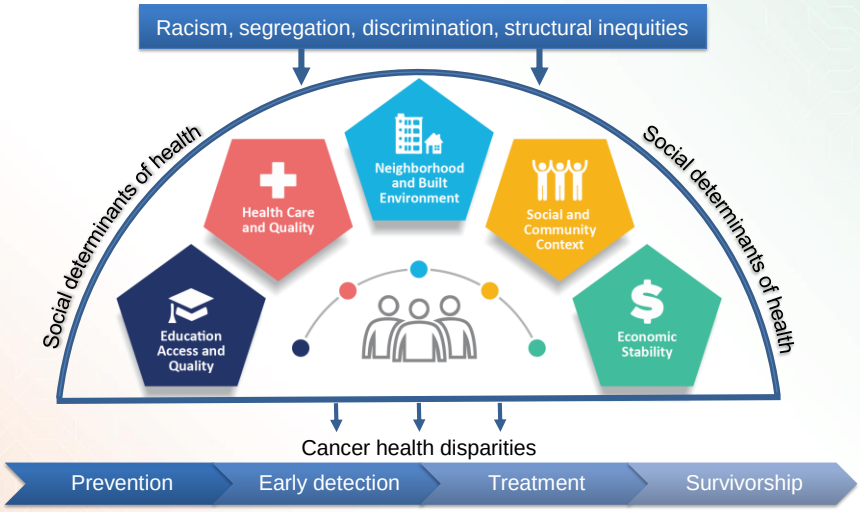
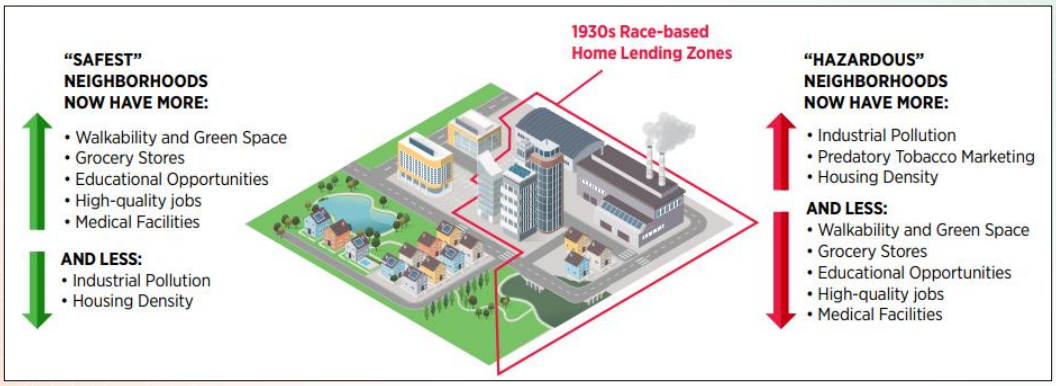


Figure adapted from CDC and AACR (available at https://www.cdc.gov/publichealthgateway/sdoh/index.html and http://www.CancerDisparitiesProgressReport.org/)

21

Social determinants drive many cancer disparities

How Redlining Underlies Cancer Disparities
AACR Cancer Disparities Progress Report, 2022



CancerDisparitiesProgressReport.org [Internet]. Philadelphia: American Association for Cancer Research; ©2022 [cited 2022 Aug 9]. Available from http://www.CancerDisparitiesProgressReport.org/.

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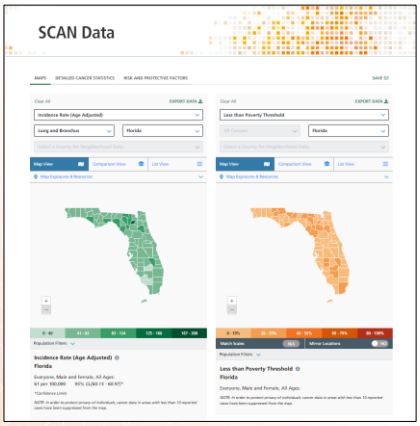
Example: SCAN 360 – A geospatial tool to advance cancer control efforts in Florida



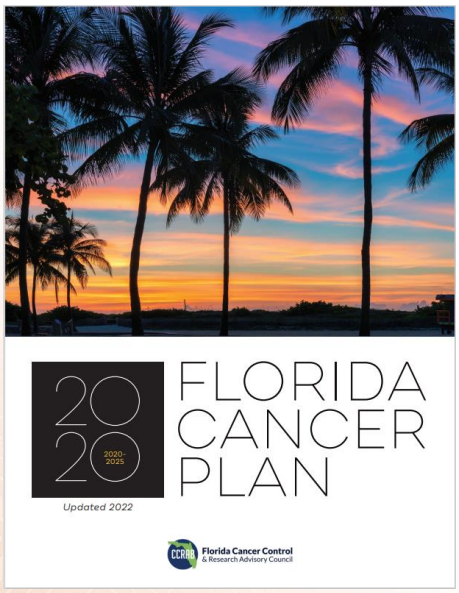
Interactive tool available at:
https://scan360.com/

- Visualize the **spatial patterning of cancer** morbidity and mortality across the state
  - Powered by FCDS
- Visualize of **spatial patterning of contextual factors and social determinants of health** across the state
  - US Census/American Community Survey
  - Behavioral Risk Factor Surveillance System
  - USDA Food Environment Atlas
  - Robert Wood Johnson Foundation County Health Rankings

…and more!

Bailey Z, Balise R, Bouzoubaa L, Kobetz E. SCAN360: A Resource for a 360-Degree View of Cancer Prevention, Risk, and Survival. Prev Chronic Dis. 2020 Nov 25;17:E149.
Baeker Bispo, JA, Balise, R.R. & Kobetz, E.K. Cancer Data Visualization: Developing Tools to Serve the Needs of Diverse Stakeholders. *Curr Epidemiol Rep* (2022).

23



Cancer Control and Research Advisory Council's 2020-2025 Cancer Plan

Goal 2: Ensure collection of comprehensive and high-quality cancer-related data from all FL cancer patients to inform cancer prevention and control programs.

- **Objective 2.1: Form a state cancer data workgroup** consisting of members from CCRAB, FL DOH, FCDS, FHA, AHCA, and other key stakeholders to develop strategies for adding cancer biology data, **social determinants of health data,** cancer screening data, and precancerous cervical pathology test results (CIN2/3, CIS) to the state cancer registry.
- **Objective 2.3: Pilot addition of social determinants of health** and additional demographics such as occupation or country of origin as data collected and archived by Florida's statewide cancer data and surveillance program

Cancer plan available at: https://www.ccrab.org/index.cfm?a=Files.Serve&File_id=936C3AD4-2EFA-4390-BBCA-402CBF53FE57

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Genetics Primer – Genetics for Central Cancer Registries

Eric B. Durbin, DrPH, MS

Assistant Professor, Division of Biomedical Informatics, College of Medicine
Director, Cancer Research Informatics Shared Resource Facility, Markey Cancer Center
Director, Kentucky Cancer Registry
University of Kentucky

Florida Cancer Data System Annual Conference
August 11, 2022

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Topics to be Covered

- Why collect genomic tumor data?
- Genomic data routinely generated for clinical oncology
- A central registry approach to surveillance of genomic data
- Central registry infrastructure needed

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CANCER REGISTRY

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NSCLC Treatment Before Genomics

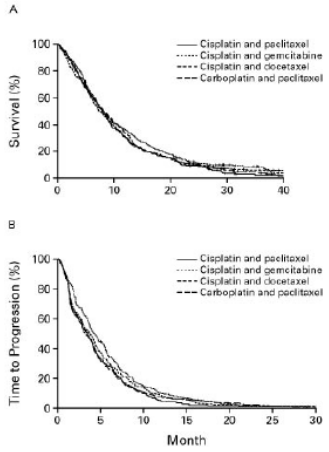
2-drug platinum-based regimens

Stratification

- Performance status 0-1 vs. 2
- Weight loss in previous 6 months <5% vs. ≥5%
- Disease stage IIIB or IV
- Presence or absence of brain metastases

RANDOMIZE

- **Arm A: Cisplatin + Paclitaxel**
  Paclitaxel: 135 mg/m² over 24 hours, day 1
  Cisplatin: 75 mg/m² day 2
  3-week cycle
- **Arm B: Cisplatin + Gemcitabine**
  Gemcitabine: 1,000 mg/m² days 1,8,15
  Cisplatin: 100 mg/m² day 1
  4-week cycle
- **Arm C: Cisplatin + Docetaxel**
  Docetaxel: 75 mg/m² day 1
  Cisplatin: 75 mg/m² day 1
  3-week cycle
- **Arm D: Carboplatin + Paclitaxel**
  Paclitaxel: 225 mg/m² over 3 hours, day 1
  Carboplatin: AUC 6.0 day 1
  3-week cycle



Median survival 8 mo.

Response rate 19%

Median time to tumor progression (TTP) 3.7 mo.

Schiller JH. NEJM 2002; 346:92-98

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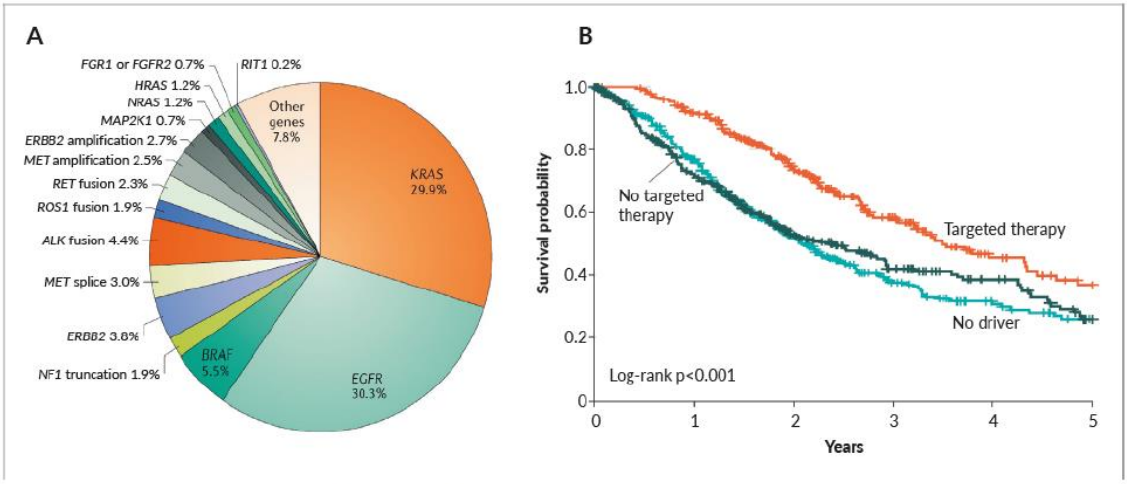
Current and Future Targets in NSCLC



Meisel 2020, Healthbook

Slide courtesy of Dr. Jill Kolesar

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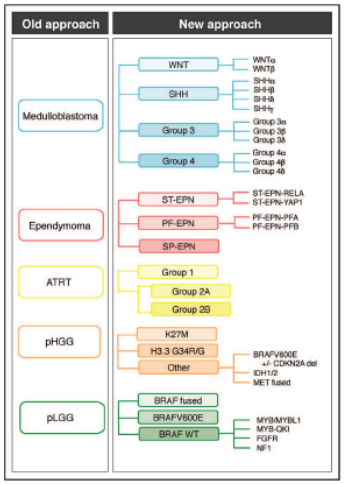
Shifting Paradigm in Treatment of Pediatric Brain Tumors



- Medulloblastoma – Subgroup of Embryonal Tumors
- Ependymoma – A type of CNS Tumor
- Atypical Teratoid/Rhabdoid Tumors (ATRT) – Rhabdoid tumors of the CNS. common in very young children
- Pediatric High-Grade Glioma (pHGG) – heterogenous malignant tumors
- Pediatric Low-Grade Glioma (pLGG) – histologically diverse benign tumors of glial origin

Guerreiro Stucklin, Ana S, Ramaswamy, Vijay, Daniels, Craig, and Taylor, Michael D. "Review of Molecular Classification and Treatment Implications of Pediatric Brain Tumors." Current Opinion in Pediatrics. 30.1 (2018): 3-9. Web.

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Genomic Data Capture: A Public Health Imperative

How do genomic variants impact treatment, treatment response, and survival in the population?

Do disparities exist in patients who have access to molecular testing and targeted therapy?

Do molecular profiles vary by geography, race/ethnicity, or socio-economic status?

Can genetic testing be used to identify cancer risk, diagnose cancer sooner or prevent cancer?

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Next Generation Sequencing (NGS) Multi-Gene Targeted Panels

Kentucky Cancer Registry (KCR) Cancer Genomics Data Sources

- Clinical NGS reports
- Research NGS Reports Oncology Research Information Exchange Network (ORIEN)
- Pediatric Brain Tumor Study

Common Clinical NGS Service Providers in U.S.

- Guardant Health
- Foundation Medicine
- Caris Life Sciences
- Tempus
- Others

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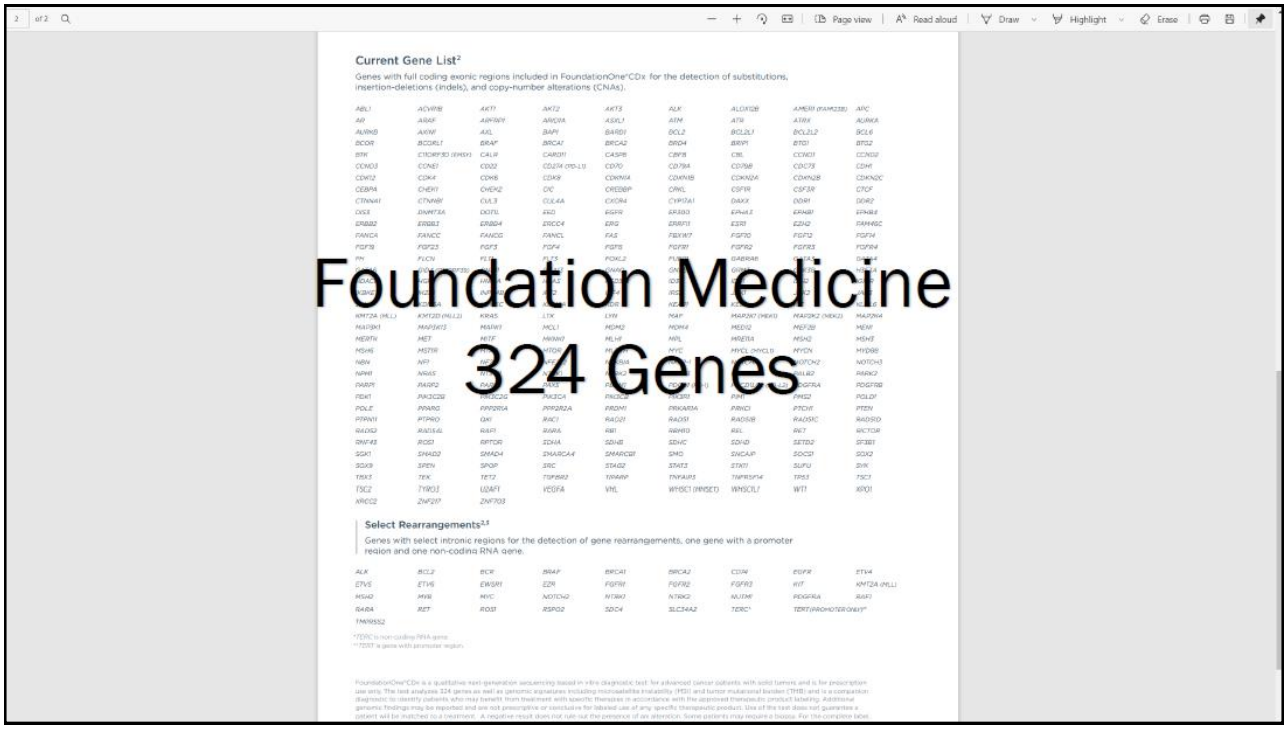

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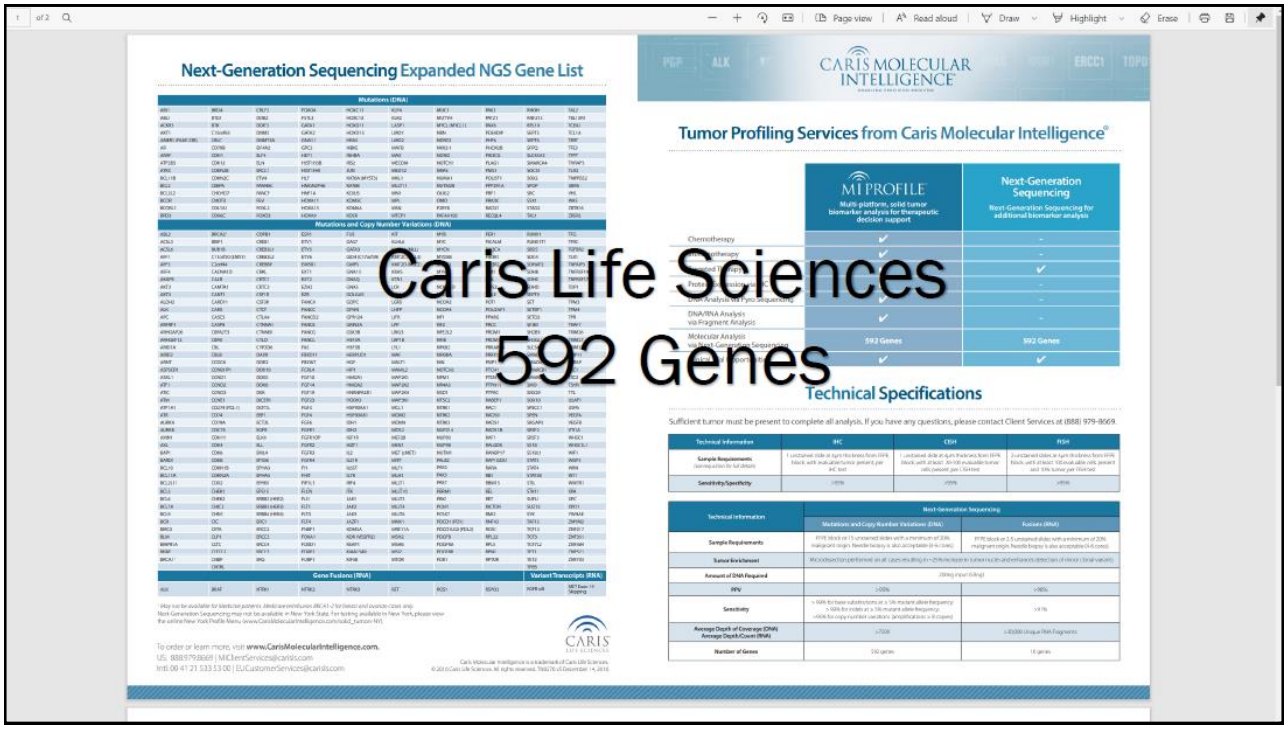
Next-Generation Sequencing Expanded NGS Gene List
CARIS MOLECULAR INTELLIGENCE
Tumor Profiling Services from Caris Molecular Intelligence®
MI PROFILE
Multi-platform, solid tumor biomarker analysis for therapeutic decision support
Next-Generation Sequencing
Next-Generation Sequencing for additional biomarker analysis
Chemotherapy
Immunotherapy
DNA/RNA Analysis via Fragment Analysis
592 Genes
Technical Specifications
Caris Life Sciences
592 Genes

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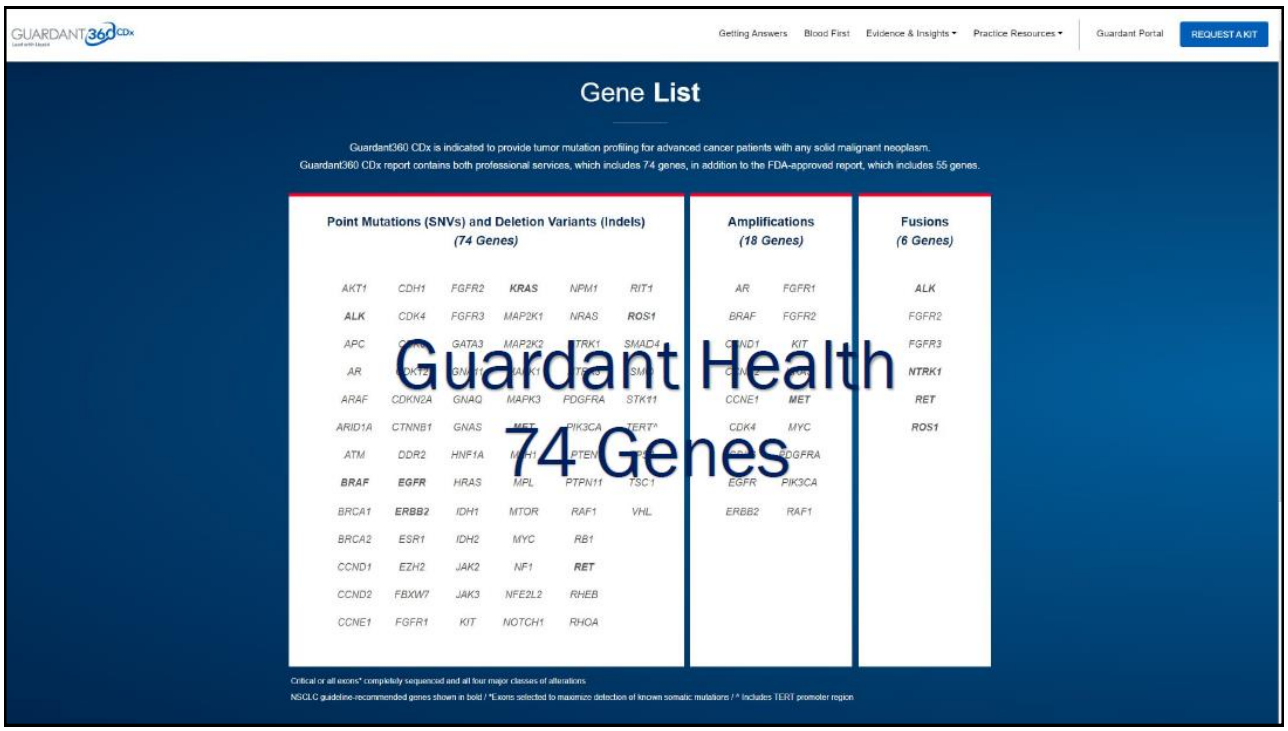
GUARDANT360 CDx
Getting Answers
Blood First
Evidence & Insights
Practice Resources
Guardant Portal
REQUEST A KIT
Gene List
Guardant360 CDx is indicated to provide tumor mutation profiling for advanced cancer patients with any solid malignant neoplasm.
Guardant360 CDx report contains both professional services, which includes 74 genes, in addition to the FDA-approved report, which includes 55 genes.
Point Mutations (SNVs) and Deletion Variants (Indels) (74 Genes)
Amplifications (18 Genes)
Fusions (6 Genes)
Guardant Health
74 Genes
Critical or all exons* completely sequenced and all four major classes of alterations
NSCLC guideline-recommended genes shown in bold / *Exons selected to maximize detection of known somatic mutations / ^ Includes TERT promoter region

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Traditional Abstraction of Gene Mutations?

- Site Specific Data Items (SSDIs) take years to approve
  - Long after testing and clinical use have become standards of clinical care
- Registrars do not have time to review and manually code hundreds of gene mutations per case
- Obtaining test results directly from sequencing providers will be much more efficient and complete

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Central Registry Infrastructure Needed to Capture Genomic Test Data

Moving Beyond the Limitations

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Commercial Laboratory NGS Panel Testing and Reporting

Clinical Report

- Specific gene mutations from tumor tissue
- Suggestions for FDA approved targeted agents and clinical trials
- May or may not report variants of unknown significance

Raw Data used to Generate Clinical Report

- Sequencer -> FastQ -> BAM -> VCF -> Clinical Report

- Clinical report based upon current knowledge of mutation variants
- FastQ and BAM files contain information that may prove important in future
- At minimum, BAM files important for surveillance

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KCR/MCC cBioPortal for Cancer Genomics

I. The cBioPortal for Cancer Genomics is an open-access, open-source resource for interactive exploration of multidimensional cancer genomics data sets. The goal of cBioPortal is to significantly lower the barriers between complex genomic data and cancer researchers by providing rapid, intuitive, and high-quality access to molecular profiles and clinical attributes from large-scale cancer genomics projects, and therefore to empower researchers to translate these rich data sets into biologic insights and clinical applications.

II. Provide representative, de-identified, population-based data from Kentucky cancer patients annotated with high quality KCR data

cBioPortal for Cancer Genomics

KENTUCKY CANCER REGISTRY

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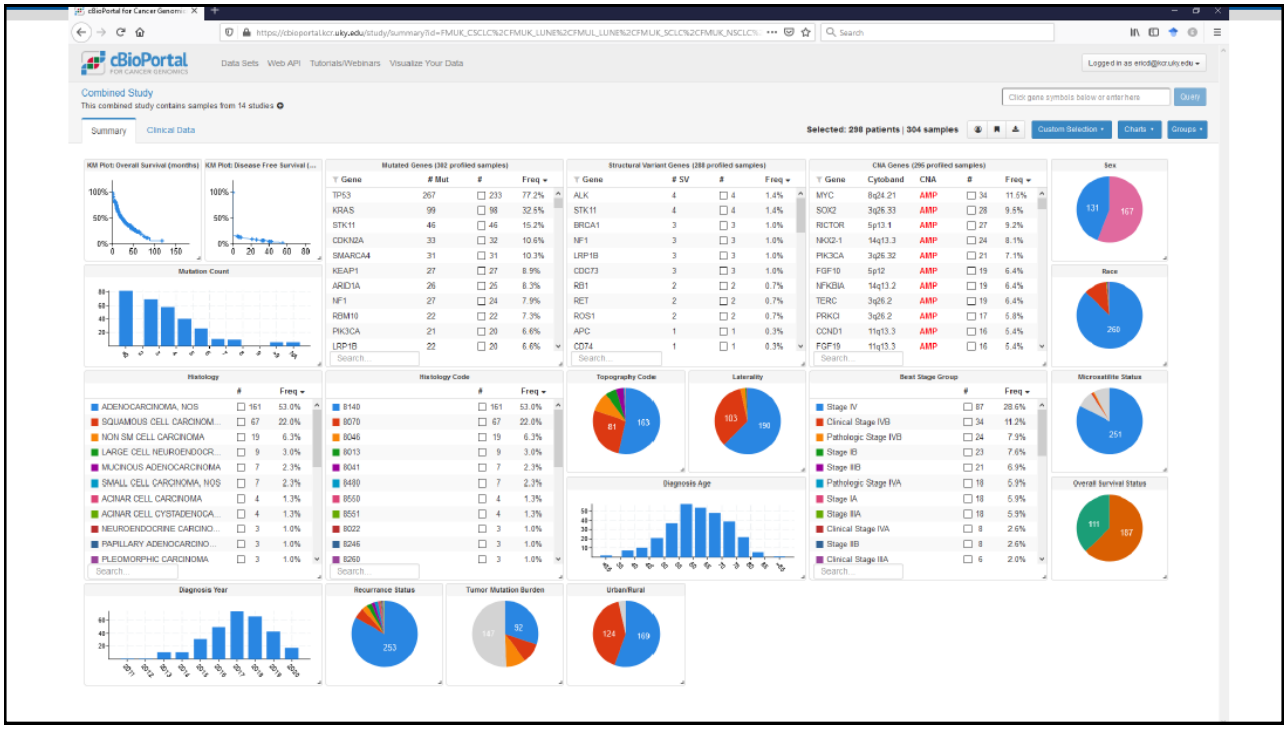
cBioPortal
Combined Study
This combined study contains samples from 14 studies
Summary
Clinical Data
Selected: 298 patients | 304 samples
Mutated Genes (302 profiled samples)
Structural Variant Genes (288 profiled samples)
CNA Genes (296 profiled samples)
Mutation Count
Histology
Histology Code
Topography Code
Laterality
Best Stage Group
Diagnosis Age
Diagnosis Year
Recurrance Status
Tumor Mutation Burden
Urban/Rural
Sex
Race
Microsatellite Status
Overall Survival Status

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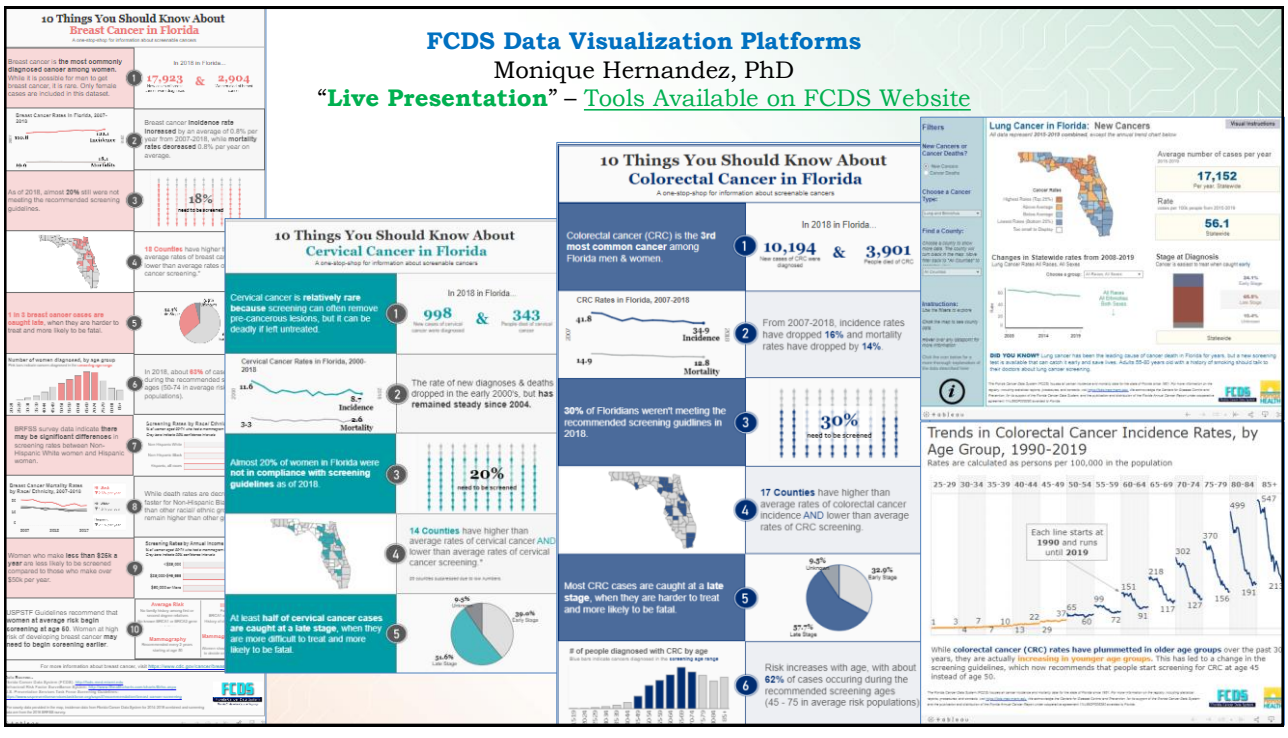
FCDS Data Visualization Platforms
Monique Hernandez, PhD
"Live Presentation" – Tools Available on FCDS Website
10 Things You Should Know About Breast Cancer in Florida
10 Things You Should Know About Cervical Cancer in Florida
10 Things You Should Know About Colorectal Cancer in Florida
Lung Cancer in Florida: New Cancers
Trends in Colorectal Cancer Incidence Rates, by Age Group, 1990-2019

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NAACCR Summer Forum
June 14-16, 2022

LUNG CANCER SURVIVAL AMONG MALE FLORIDA CAREER AND VOLUNTEER FIREFIGHTERS

David J. Lee, PhD

Department of Public Health Sciences, Sylvester Comprehensive Cancer Center
Miller School of Medicine, University of Miami
Florida Cancer Data Registry
Miami, Florida, USA

Tulay Koru-Sengul PhD, MHS, Paulo Pinheiro MD, PhD, Wei Zhao MD, Monique N. Hernandez PhD, Feng Miao MS, Laura A. McClure MSPH, Alessandra Maggioni BSPH, Alberto Caban-Martinez PhD, DO, MPH, Erin Kobetz PhD, David J. Lee, PhD

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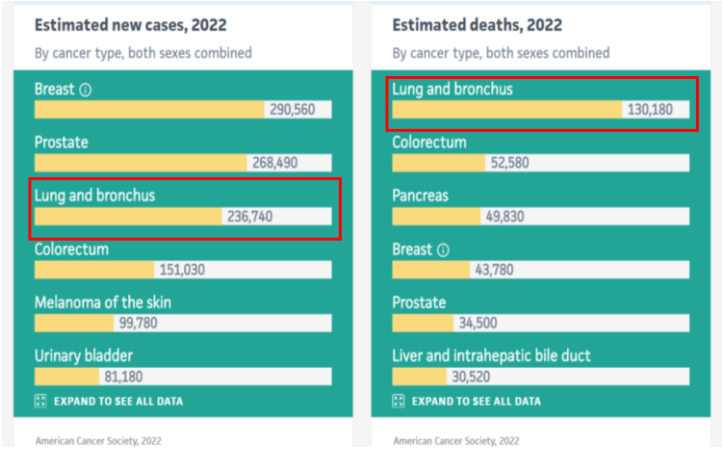
Lung Cancer: USA

- Leading cause of cancer incidence and death in the US.



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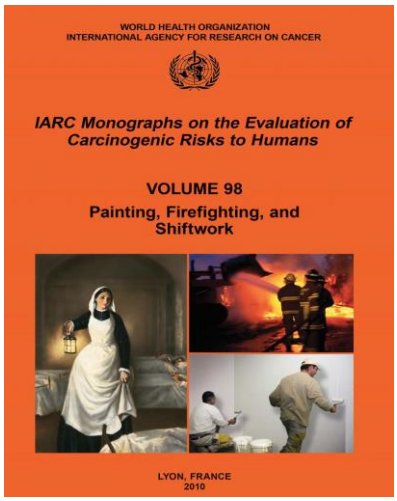
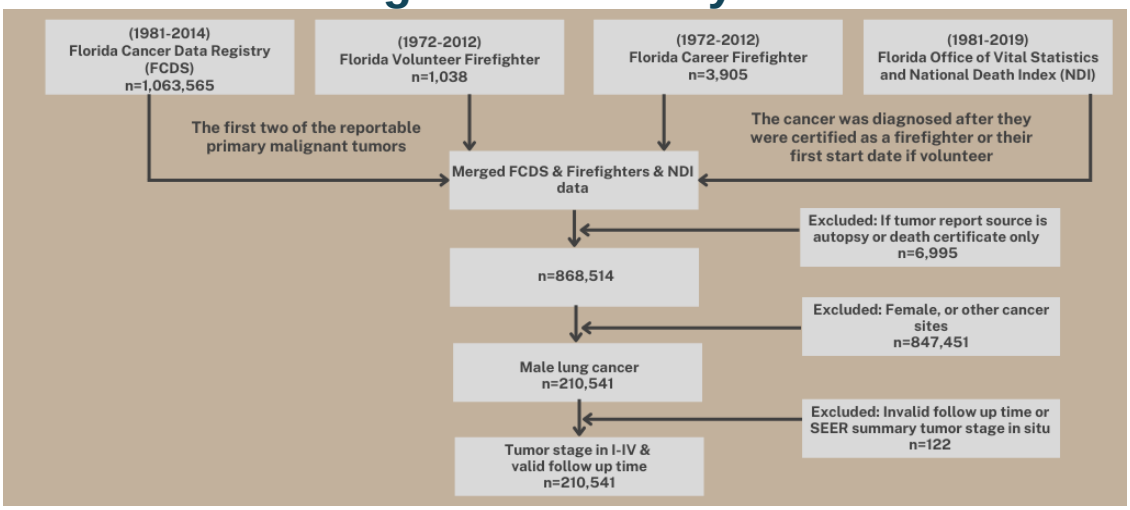
Occupational exposure as a firefighter is "possibly carcinogenic to humans"

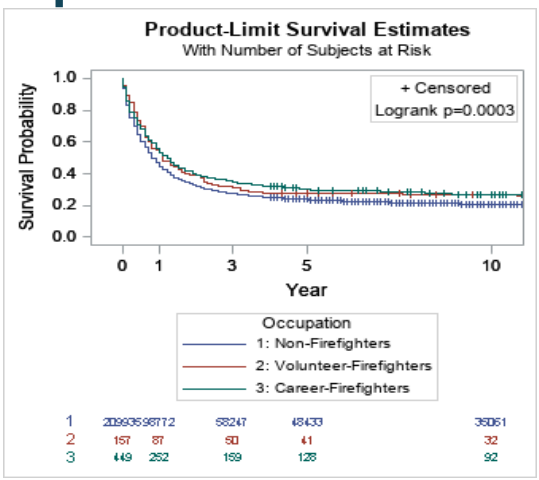
- Firefighters are exposed to various toxic substances by the inhalation of particulate matter and gases as well as dermal exposure routes.
- Epidemiologic investigations on lung cancer survivorship for both career- and volunteer-firefighters are lacking.

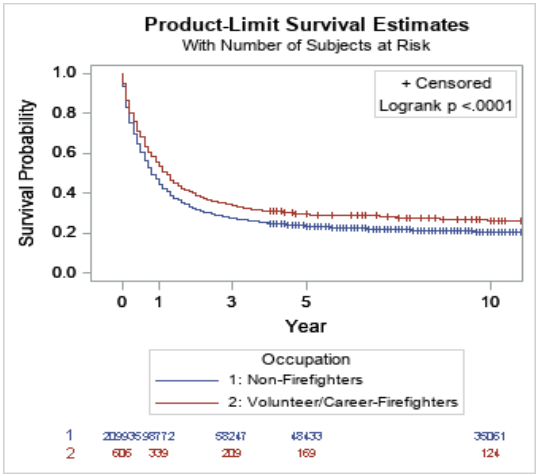


Firefighter Cancer Initiative Linkage Lung Cancer Study Data



Kaplan Meier Survival Curves





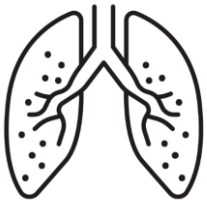
The Kaplan-Meier plots used all years of incidence cases (1981-2014) followed up until 2019.
The plots were created for the first 10-years to clearly show survival curves.

Survival Rates by Patient Groups

Group	n	Survival rate (%) with 95% Confidence Interval			
		1 year	3 years	5 years	10 years
All patients	210,541	44.6 (44.4 - 44.8)	27.4 (27.3 - 27.6)	23.8 (23.6 - 24.0)	20.9 (20.7 - 21.0)
Non-Firefighters	209,935	44.6 (44.4 - 44.8)	27.4 (27.2 - 27.6)	23.8 (23.6 - 24.0)	20.9 (20.7 - 21.0)
Career-Firefighters	449	53.7 (48.9 - 58.2)	35.0 (30.6 - 39.4)	30.2 (26.0 - 34.5)	26.6 (22.5 - 30.8)
Volunteer-Firefighters	157	52.9 (44.8 - 60.3)	31.2 (24.1 - 38.5)	27.4 (20.7 - 34.5)	26.6 (20.0 - 33.7)

Conclusion

- Lung cancer survivorship is significantly better among firefighters compared to non-firefighters.
- These findings could be driven, in part, by a healthy worker effect.
- Career, and possibly volunteer firefighters, may have lower barriers to cancer care via more consistent access to health insurance coverage during their working lives.
- Many career and some volunteer firefighters have advanced medical training (e.g., EMT, paramedic), which could also lead to greater involvement in, and compliance with cancer treatments.



Becoming a CTR – NCRA Clinical Practicum & CTR Exam Core Competencies

FCDS Annual Conference
Barbara Dearmon-Neyland, BS, CTR
NCRA Education Committee Chair

NCRA Revised Practicum (Derived from the CTR Exam's Domain of Practice)

The practicum is based on five Core Competencies.

Practicum activities focus on developing skills in these critical knowledge areas. ·

- Casefinding
- Abstracting
- Coding, and Staging
- Analysis and Data Usage
- Registry Organization
- Follow-Up, and Data Quality Assurance
- Cancer Program Accreditation

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NCRA Center for Cancer Registry Education Practicum Portal ACCESS

- Available only to students who have completed all the course work in an NCRA accredited program and are ready to begin practicum activities.
- College programs: Program Directors have information to access the Practicum Activities
- AHIMA students: information is in every AHIMA course in the "Course Home" section. Students complete survey and submit documentation of completion of coursework for review.

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OPTIONS FOR PRACTICUM ACTIVITIES

Option 1: In-Person

- Always preferred
- On-site, CTR-credentialed advisor (instructor) required to record student's completion of practicum activities

Option 2: Virtual

- Activities include:
  - SEER*Educate
  - NCRA-created
- CTR-credentialed advisor (instructor) required to review practicum activities and answer questions

Option 3: Hybrid

- Activities include:
  - In-Person
  - SEER*Educate &/or
  - NCRA-created
- CTR-credentialed advisor (instructor) required to review practicum activities and answer questions

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CORE COMPETENCY ASSESSMENTS

- Core Competency Assessments are the final step in all NCRA accredited Cancer Registry Management degree/diploma/certificate programs.
- **ALL** students, upon completion of practicum activities, will be required to complete a series of Core Competency Assessments to measure their knowledge in each of the five Core Competencies.
  - Applies to Options 1, 2, and 3
  - Minimum score of 70% to pass each assessment
  - Download Practicum Assessment Completion Certificate and submit to instructor for documentation of completion, or submit with CTR exam application.

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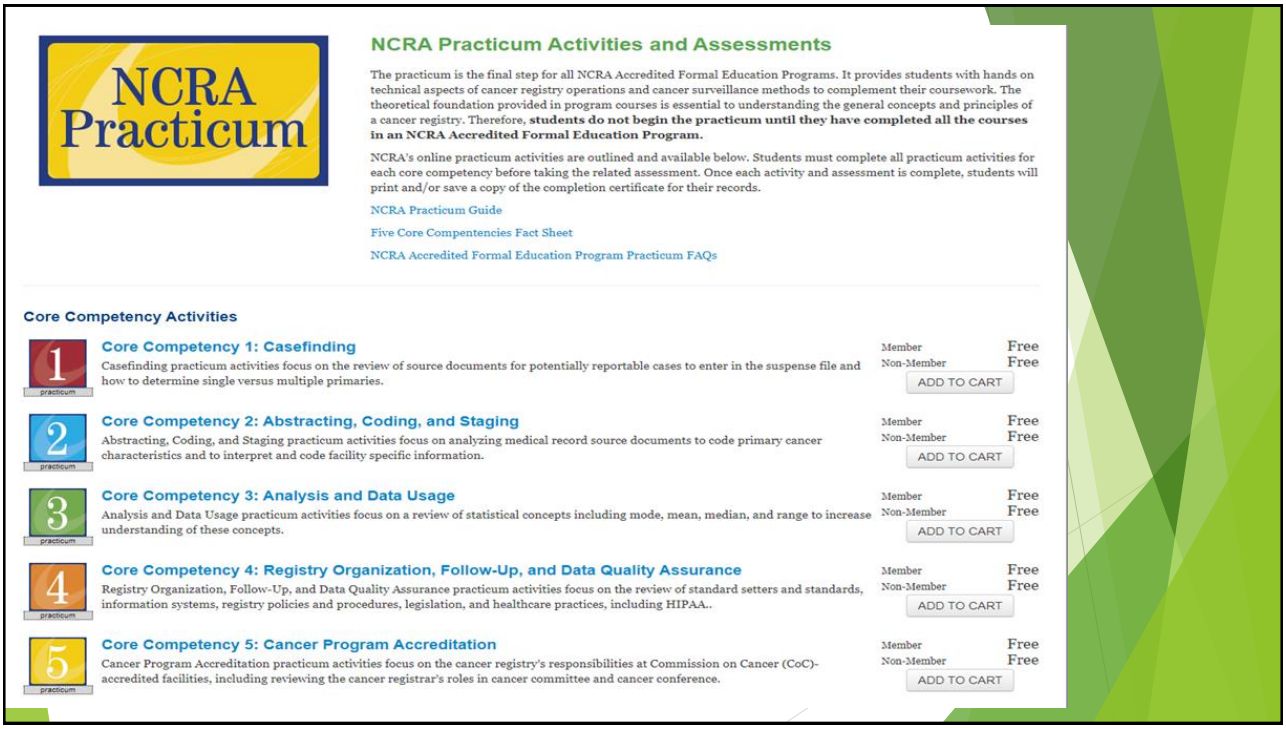

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FCDS Florida Statewide Cancer Registry
Florida Cancer Data System

Welcome to Session II of the FCDS Annual Meeting

Session	Date/Time	Estimated Time	2022 FCDS Virtual Annual Conference - Topic	Speaker
FCDS Session 2	8/18/2022 1pm-3pm	1:00pm-1:15pm	2020-2021 Data Acquisition Summary & 2022 Completeness of Reporting	Meg Herna, BA CTR - FCDS
		1:15pm-1:30pm	2021 QC Activity Summary & Findings (Audits/QC Review/NPCR DQE)	Steven Peace, CTR - FCDS
		1:30pm-2:00pm	2022 Audits – 2019 DX NET/NEC - 2020 DX Myeloid/Lymphoid Neoplasms	Steven Peace, CTR - FCDS
		2:00pm-2:30pm	What's New in 2022? 2022 Florida Cancer Reporting Requirements	Meg Herna, BA CTR - FCDS
		2:30pm-2:40pm	FCRA/FCDS Task Force – Florida Guide for Contracted Abstracting Services	Steven Peace, CTR – FCDS Marcia Hodge, CTR - FCRA
		2:40pm-2:50pm	2022-2023 FCDS Education and Training Plan	Steven Peace, CTR - FCDS
		2:50pm-3:00pm	Annual FCDS Jean Byers and Pat Strait Awards	Meg Herna, CTR - FCDS

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FCDS Florida Cancer Data System

Data Acquisition Summary 2021-2022

MEGSYS HERNA, BA, CTR

FCDS VIRTUAL ANNUAL CONFERENCE

AUGUST 18, 2022

CDC Centers for Disease Control and Prevention

NPCR NATIONAL PROGRAM OF CANCER REGISTRIES

Florida HEALTH

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Florida Reporting Sources

Reporting Source	2020	2021	2022
Hospitals	229	230	232
Radiation Treatment Centers	122	119	119
Ambulatory Surgery Centers	486	502	515
Pathology Labs (CLIA's)	1264	1453	1060
Hematology/Oncology	558	592	776
Hematologists	24	38	49
Oncologists	188	206	271
Urologists	524	548	668
Dermatologists	1077	1153	1562
Other Specialty Physicians	1439	1947	2620
Total	5911	6788	7,872

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Reporting Compliance Completeness Report

Total number of New Cases added to the FCDS Master file in June, 2022: 22,078

The figures shown below reflect initial patient encounters (admissions) for cancer by year.

Admission Year	Hospital	Radiation	AmbiSurg	Dermatology	Physicians Claims	DCO	Total Cases	New Cases
2021	153,686	804	369	11,689	501	Pending	167,049	17,644
2020	210,079	4,268	264	12,182	23,430	Pending	250,223	3,865
2019	235,477	6,432	2,005	12,572	25,267	2,440	284,193	569

	Actual	Expected*
2021	67%	100%
2020	100%	100%
2019	100%	100%

Expected % based on 250,000 reported cases per year

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Reporting Compliance Completeness Report – just 3 months later

Total number of New Cases added to the FCDS Master file in September, 2022: 14,787

The figures shown below reflect initial patient encounters (admissions) for cancer by year.

Admission Year	Hospital	Radiation	AmbiSurg	Dermatology	Physicians Claims	DCO	Total Cases	New Cases
2022	21,074	610	103	6,285	16	Pending	28,088	6,379
2021	185,180	2,259	448	12,078	4,631	Pending	204,596	6,243
2020	217,460	5,787	1,328	12,446	25,320	Pending	262,341	2,165

	Actual	Expected*
2022	11%	25%
2021	82%	100%
2020	100%	100%

Expected % based on 250,000 reported cases per year

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Certified Complete on June30th

1170	N FLORIDA REGIONAL MEDICAL CENTER
1300	GULF COAST REGIONAL MEDICAL CENTER
1306	ASCENSION SACRED HEART BAY
1601	WESTSIDE REGIONAL MED CTR
1681	HCA FLORIDA NORTHWEST HOSPITAL
1687	HCA FLORIDA WOODMONT HOSPITAL
1800	FAWCETT MEMORIAL HOSPITAL
1836	BAYFRONT HEALTH PORT CHARLOTTE
1846	BAYFRONT HEALTH PUNTA GORDA
1900	BRAVERA HEALTH SEVEN RIVERS
1905	CITRUS MEMORIAL HOSPITAL
2000	ORANGE PARK MEDICAL CENTER
2246	LAKE CITY MEDICAL CENTER
2304	AVENTURA HOSP AND COMP CANCER CTR
2338	MERCY HOSPITAL - MIAMI
2358	KENDALL REGIONAL MEDICAL CENTER
2372	U OF MIAMI HOSPITAL CLINICS
2377	WESTCHESTER GENERAL HOSPITAL
2605	BAPTIST MEDICAL CENTER BEACHES
2636	BAPTIST MEDICAL CTR JACKSONVILLE
2640	BAPTIST MEDICAL CENTER SOUTH
2648	MEMORIAL HOSPITAL JACKSONVILLE
2672	WOLFSON CHILDRENS HOSP NCC
2700	WEST FLORIDA HOSPITAL
2738	ASCENSION SACRED HEART
3300	ASCENSION SACRED HEART ON THE GULF
3701	OAK HILL HOSPITAL
3705	BAYFRONT HEALTH BROOKSVILLE
3715	SPRING HILL REGIONAL HOSPITAL
3805	HIGHLANDS REGIONAL MEDICAL CENTER
3903	BRANDON REGIONAL HOSPITAL
3932	H LEE MOFFITT CANCER CENTER
3977	HCA FLORIDA SOUTH TAMPA HOSPITAL
3978	HCA FLORIDA WEST TAMPA HOSPITAL
3988	SOUTH BAY HOSPITAL
4206	JACKSON HOSPITAL
4516	LEESBURG REGIONAL MEDICAL CENTER
4601	CAPE CORAL HOSPITAL
4605	LEE MEMORIAL HEALTH SYSTEM
4645	REG CANCER CTR GULF COAST HOSPITAL
4647	LEHIGH REGIONAL MEDICAL CENTER
4690	LEE MEMORIAL HOSPITAL HEALTHPARK
4705	TALLAHASSEE MEMORIAL HEALTHCARE
4770	CAPITAL REGIONAL MEDICAL CENTER
5100	BLAKE MEDICAL CENTER
5110	LAKEWOOD RANCH MEDICAL CENTER
5200	OCALA REGIONAL MEDICAL CENTER
5202	WEST MARION COMMUNITY HOSPITAL
5406	LOWER KEYS MEDICAL CENTER
5505	BAPTIST MEDICAL CENTER NASSAU
5606	TWIN CITIES HOSPITAL
5607	NORTH OKALOOSA MEDICAL CENTER
5610	ASCENSION SACRED HEART EMERALD COAS
5670	FORT WALTON BEACH MED CTR
5705	RAULERSON HOSPITAL
5807	UCF LAKE NONA MEDICAL CENTER
5900	POINCIANA MEDICAL CENTER
5967	HCA FLORIDA OSCEOLA HOSPITAL
6001	JFK NORTH CAMPUS
6003	DELRAY MEDICAL CENTER
6007	LAKESIDE MEDICAL CENTER
6048	JFK MEDICAL CENTER
6068	WELLINGTON REGIONAL MEDICAL CENTER
6069	PALMS WEST HOSPITAL
6070	PALM BEACH GARDENS MEDICAL CENTER
6170	HCA FLORIDA TRINITY HOSPITAL
6172	HCA FLORIDA BAYONET POINT HOSPITAL
6201	HCA FLORIDA NORTHSIDE HOSPITAL
6206	HCA FLORIDA LARGO HOSPITAL
6246	JOHN HOPKINS ALL CHILDRENS HOSPITAL
6273	PALMS OF PASADENA HOSPITAL
6274	ST PETERSBURG GENERAL HOSPITAL
6305	LAKELAND REGIONAL MEDICAL CENTER
6446	PUTNAM COMMUNITY MEDICAL CTR
6600	LAWNWOOD REGIONAL MED CTR
6647	ST LUCIE MEDICAL CENTER
6707	SANTA ROSA MEDICAL CENTER
6810	ENGLEWOOD COMMUNITY HOSPITAL
6870	DOCTORS HOSPITAL
6905	CENTRAL FLORIDA REGIONAL HOSPITAL
7005	VILLAGES REGIONAL HOSPITAL
7408	HCA FLORIDA UNIVERSITY HOSPITAL
7711	OVIEDO MEDICAL CENTER

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Private Practice Physicians 2021 Medical Claims Reporting

1,764 private physicians registered with FCDS

- Oncologists
- Urologists
- Hematology/Oncologists
- Hematologists

Of which 999 are reporting medical claims

5010 Claim Reporting Format

Over 5.4 million medical claims reported to FCDS in 2022 so far

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Private Practice Physicians Medical Claims Reporting

Claims received by Year

2015	3,862,630	
2016	4,295,399	
2017	3,349,517	
2018	4,295,713	
2019	4,301,763	
2020	3,920,084	
2021	2,912,709	(as of August 1, 2021)
2022	5.4 million	(as of June 2022)

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Dermatology Reporting

- 1,126 Dermatologists are actively reporting
- Abstract Entry Module was created for the dermatology office staff to enter cancer information without having cancer registry knowledge
- FCDS IDEA
- Data items:
  1) Demographic information
  2) Tumor Information
     - Primary site
     - Histology
     - Laterality
     - DX date
     - Stage and Breslow
  3) First Course Treatment

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Pathology Labs

Reporting Options

1. Single Entry
2. Tab delimited file
3. HL7

- Secure file transfer protocol (SFTP)
- CDC/NPCR provided PHINMS transport method
- APHL via State

All done via FCDS IDEA

318 CLIAs are fully integrated into regular FCDS operations

Over 17 million pathology reports in the FCDS database

- Linked cases are used in QC, CAPIS, Consolidated FB

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Consolidated Follow Back Annual Casefinding Audit

External Linkages:

1. AHCA billing discharge data
   - Agency for Health Care Administration
     - Licensing agency
     - Hospitals
     - Ambulatory Surgery Centers
2. Florida Vital Statistics Death Certificate files

Objectives:

1. Casefinding
2. Monitor disposition code assignment for cases that remain unreported to FCDS

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2020 Consolidated Follow Back

47,780 were identified for follow back

- Include hospitals, ambulatory surgical centers and non-hospitals
- Most of them will be not reportable cases
- Approximately 10,000 cases will be reportable

Notices were emailed to hospitals and ambulatory surgery centers on May 2, 2022

Deadline is September 1, 2022

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FCDS 2022-2023 Reporting Years Calendar

Dates Subject To Change

Patient Encounter for Cancer	Case Should Be Reported
ALL 2021 CASES DUE 6/30/2022	ALL 2021 CASES DUE 6/30/2022
START REPORT OF 2022 CASES – 7/1/2022	START REPORT OF 2022 CASES – 7/1/2022
January 2022	July 2022
February 2022	August 2022
March 2022	September 2022
April 2022	October 2022
May 2022	November 2022
June 2022	December 2022
July 2022	January 2023
August 2022	February 2023
September 2022	March 2023
October 2022	April 2023
November 2022	May 2023
December 2022	June 2023
ALL 2022 CASES DUE 6/30/2023	ALL 2022 CASES DUE 6/30/2023

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FCDS Recurring Deadlines

RECURRING DEADLINES		
Monthly	**FC Review/Inquiry**	Cases with FC Review Inquiry or correction(s) must be reviewed and responded to monthly
Monthly	**QC Review/Inquiry**	Cases with QC Review Inquiry or correction(s) must be reviewed and responded to monthly
June 30	**Annual Reporting Deadline**	All cases from previous calendar year must be reported to FCDS on or before June 30th each year
September 1	**Consolidated Follow-Back Deadline**	All unmatched cases from the combined AHCA and Vital Records Death Match must be resolved by September 1st.
Varies	**FAPTP Follow-Back Deadline**	All unmatched cases from FAPTP must be resolved each year

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FCDS Florida Cancer Data System

2022-2023 FCDS Data Quality Program

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FCDS VIRTUAL ANNUAL CONFERENCE

8/11/2022

STEVEN PEACE, CTR

2019

2020

2022

FCDS Data Quality Program - Components

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- FCDS Data Quality Program – Methods & Standards
- FCDS 2022 Abstractor Code Test – Standards, Policy & Procedures
- Annual AHCA/Mortality Casefinding Audit – Completeness
- Visual Editing – Data Quality Tool & Feedback to Abstractors
- Internal Visual Editing Summary Reports – Education
- FCDS Deadlines & Facility Reports in IDEA – Timeliness
- Management Reports in FCDS IDEA – Facility Feedback
- Data Quality Audits – Data Quality & Education - Tools
  - 2022 Data Quality Audit – Neuroendocrine System Cancers
  - 2022 Data Quality Audit – Lymphoid and Myeloid Neoplasms
- External Audits – NPCR DQE and Ad Hoc Reviews (Testis/Heme)
- NPCR & FCDS Annual Data Quality Indicator Report – Data Quality – Tools
- Technical Questions to Field Coordinator or FCDS Managers

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Annual AHCA/Mortality Casefinding Audit – Completeness

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- Why do we do AHCA/Mortality or Consolidated Follow-Back Re-Casefinding Audits at 100% of facilities across the entire state of Florida – Every Year? We check all patient encounters and all deaths…why?
- Includes In-Patient and Ambulatory Patient Encounters for **100% of Hospitals & 100 of Surgery Centers**
- FCDS also identifies missed cases using our **combined e-path reporting and physician claims in CAPIS**.
  - FCDS identifies over 40,000 potentially missed cases from AHCA/Mortality Audit – EVERY YEAR
  - More than 10,000 cases per year are actually missed
  - These 'missed' cases are more than 2 years delinquent for reporting
  - Furthermore, more than 20,000 cases were (mis)coded as 'active cancer' by your medical records and billing department – But, these are returned to FCDS as 'not reportable'. Weight heaviest in ambulatory care codes.
  - Responses on more than 5,000 cases are never returned to FCDS – sad but true.

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Visual Editing – Data Quality & Feedback to Registrars

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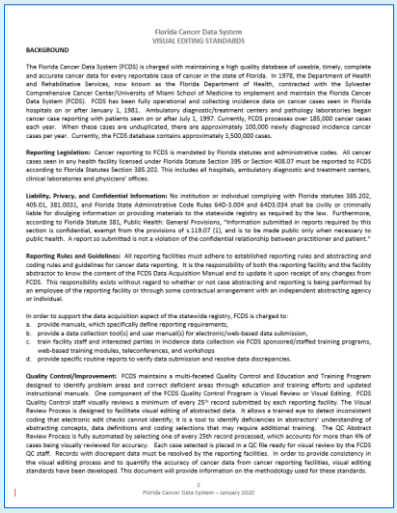
- **Purpose of Standard Electronic Edits & Volume of Changes**
- **FCDS Visual Editing Standards Document – Purpose & Process**
- Comparison of text documentation to coded fields
- Focus on Tumor Characteristics, Staging, SSDIs, Treatment
- Ensure the Case 'makes sense' as Coded – Site/Histology/Stage/Treatment
- Ensure Registrars are Using/Understand Coding Manuals/New Standards
- FCDS QC Sample for Visual Editing
  - 1/25 Records Submitted or 4% of Analytic Cases PLUS
  - All Pediatric Cases & All Male Breast Cases PLUS
  - Other 'at risk' Cases Identified with Frequent Abstracting Errors
- Visual Editing is a 3-step process with Multiple CTR Reviewers
  - First FCDS QC CTR Review – send to Facility
  - Facility Review – return to FCDS
  - Final FCDS QC CTR Manager Review – May be Resent to Facility or Complete Case
- Multiple opportunities to identify problems and rebut 'errors'
- Education and Training Tool for Individual Abstractor Feedback
- Summary of Findings Included in Annual Conference for Clarifications
- FCDS Memo Write-Up When Find 'Unique Problems' with New Manuals, etc.



Florida Cancer Data System
VISUAL EDITING STANDARDS

BACKGROUND

The Florida Cancer Data System (FCDS) is charged with maintaining a high quality database of useable, timely, complete and accurate cancer data for every reportable case of cancer in the state of Florida. In 1978, the Department of Health and Rehabilitative Services, now known as the Florida Department of Health, contracted with the Sylvester Comprehensive Cancer Center/University of Miami School of Medicine to implement and maintain the Florida Cancer Data System (FCDS). FCDS has been fully operational and collecting incidence data on cancer cases seen in Florida hospitals on or after January 1, 1981. Ambulatory diagnostic/treatment centers and pathology laboratories began cancer case reporting with patients seen on or after July 1, 1997. Currently, FCDS processes over 185,000 cancer cases each year. When these cases are unduplicated, there are approximately 100,000 newly diagnosed incidence cancer cases per year. Currently, the FCDS database contains approximately 3,500,000 cases.

Reporting Legislation: Cancer reporting to FCDS is mandated by Florida statutes and administrative codes. All cancer cases seen in any health facility licensed under Florida Statute Section 395 or Section 408.07 must be reported to FCDS according to Florida Statutes Section 385.202. This includes all hospitals, ambulatory diagnostic and treatment centers, clinical laboratories and physicians' offices.

Liability, Privacy, and Confidential Information: No institution or individual complying with Florida statutes 385.202, 405.01, 381.0031, and Florida State Administrative Code Rules 64D-3.004 and 64D3.034 shall be civilly or criminally liable for divulging information or providing materials to the statewide registry as required by the law. Furthermore, according to Florida Statute 381, Public Health: General Provisions, "Information submitted in reports required by this section is confidential, exempt from the provisions of s.119.07 (1), and is to be made public only when necessary to public health. A report so submitted is not a violation of the confidential relationship between practitioner and patient."

Reporting Rules and Guidelines: All reporting facilities must adhere to established reporting rules and abstracting and coding rules and guidelines for cancer data reporting. It is the responsibility of both the reporting facility and the facility abstractor to know the content of the FCDS Data Acquisition Manual and to update it upon receipt of any changes from FCDS. This responsibility exists without regard to whether or not case abstracting and reporting is being performed by an employee of the reporting facility or through some contractual arrangement with an independent abstracting agency or individual.

In order to support the data acquisition aspect of the statewide registry, FCDS is charged to:
a. provide manuals, which specifically define reporting requirements,
b. provide a data collection tool(s) and user manual(s) for electronic/web-based data submission,
c. train facility staff and interested parties in incidence data collection via FCDS sponsored/staffed training programs, web-based training modules, teleconferences, and workshops
d. provide specific routine reports to verify data submission and resolve data discrepancies.

Quality Control/Improvement: FCDS maintains a multi-faceted Quality Control and Education and Training Program designed to identify problem areas and correct deficient areas through education and training efforts and updated instructional manuals. One component of the FCDS Quality Control Program is Visual Review or Visual Editing. FCDS Quality Control staff visually reviews a minimum of every 25th record submitted by each reporting facility. The Visual Review Process is designed to facilitate visual editing of abstracted data. It allows a trained eye to detect inconsistent coding that electronic edit checks cannot identify; it is a tool to identify deficiencies in abstractors' understanding of abstracting concepts, data definitions and coding selections that may require additional training. The QC Abstract Review Process is fully automated by selecting one of every 25th record processed, which accounts for more than 4% of cases being visually reviewed for accuracy. Each case selected is placed in a QC file ready for visual review by the FCDS QC staff. Records with discrepant data must be resolved by the reporting facilities. In order to provide consistency in the visual editing process and to quantify the accuracy of cancer data from cancer reporting facilities, visual editing standards have been developed. This document will provide information on the methodology used for these standards.

2
Florida Cancer Data System – January 2020

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Internal Visual Editing - Summary Report

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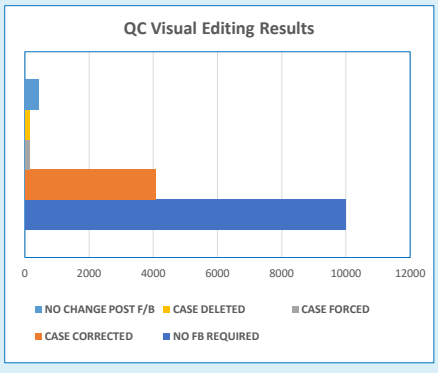

Reviewed	No FB	Cases to FB	Corrected	% Corrected	Forced	% Forced	Deleted	% Deleted	FB No Change	% No Change
45	33	12	11	24.44	0	0	0	0	1	2.22
31	20	11	10	32.26	0	0	0	0	1	3.23
17	9	8	7	41.18	0	0	0	0	1	5.88
42	31	11	8	19.05	0	0	0	0	3	7.14
36	18	18	15	41.67	0	0	0	0	3	8.33
46	38	8	5	10.87	0	0	0	0	3	6.52
102	85	17	12	11.76	0	0	0	0	5	4.9
56	36	20	19	34.55	0	0	1	1.82	0	0
30	20	10	10	33.33	0	0	0	0	0	0
1	0	1	1	100	0	0	0	0	0	0
6	4	2	2	33.33	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0
9	3	6	4	44.44	0	0	0	0	2	22.22
36	21	15	9	25.71	1	2.86	1	2.86	4	11.43
5	3	2	1	20	0	0	0	0	1	20
14737	9987	4750	4067		136		138		409	

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Internal Visual Editing – Error Category Summary Report

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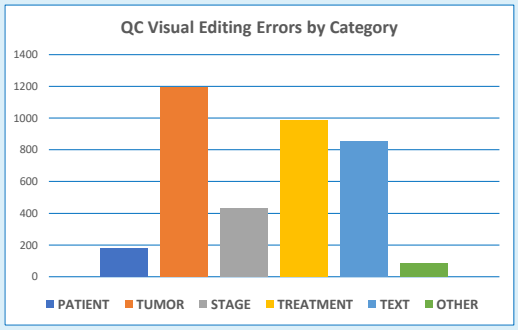


Corrected	Patient	Tumor	Stage	Treatment	Text	Other
11	1	2	1	4	2	0
10	0	0	1	6	1	1
7	0	1	1	3	0	1
8	0	2	1	2	2	0
15	0	4	3	4	1	0
5	0	1	0	1	0	0
12	0	2	0	4	5	0
19	0	7	0	6	4	0
10	0	4	1	1	2	0
1	0	0	0	0	0	0
2	0	0	0	1	1	0
4	0	1	0	0	0	0
9	0	2	0	3	0	0
1	0	0	1	0	0	0
8	1	1	3	0	0	1
3	0	1	0	1	1	0
4067	170	1197	432	985	856	83

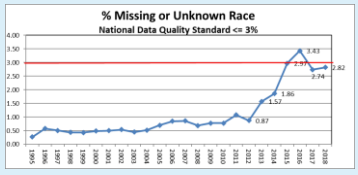
73

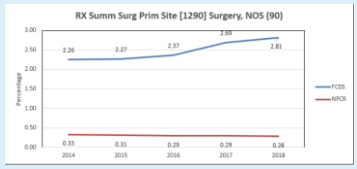
NPCR & FCDS Annual Data Quality Indicator Reports (DQIR)

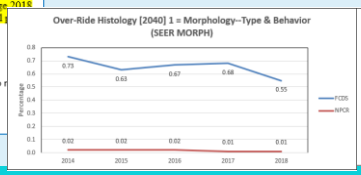
74

Summary of the DER Report for Florida
DX Years 1995-2019 & 2019
(24 month file is 2018)
(12 month file is 2019)

- 2018 DCO Rate = 1.75%
  - DCO Rate for 2017 went down from 1.66% to 1.47%... (late cases)
- Completeness met for 24 month data (2018); Missed target for 12 month data (2019)
  - 24 Month Standard: 95.00% FCDS 24 Month: 101.51%
  - 12 Month Standard: 90.00% FCDS 12 Month: 82.72%
- 24 month completeness met standard
- 12 month completeness is 7% below standard
- Race Unknown near or over the 3% threshold for National Data Quality Standard
  - 2018 % Race unknown (2.82%) near the National Data Quality Standard (<=3%)
  - 2017 % Race unknown (2.74%) near the National Data Quality Standard (<=3%)
  - 2016 % Race unknown (3.43%) over the National Data Quality Standard (<= 3%)
- It appears that the DER is in dire need of updating, there are no SSDI variables or Summary Stage 2018 in the DER and there are some Radiation variables that are no longer being collected that are still in the DER.
- 20 variable categories above NPCR median for 2018 data
  - 1 variables was below last year and are now higher
    - RX Summ Radiation [1360] Blank– however this variable is no longer collected so not sure why this is part of DER.
- 22 variable categories below NPCR median for 2018







74

2021-2022 FCDS & NPCR Data Quality Audits

75

FCDS 2022 VIRTUAL ANNUAL CONFERENCE

8/18/2022

STEVEN PEACE, CTR

2018/2019 DX - Neuroendocrine Tumor/Carcinoma of Any Site - Part I & II
2020 DX - Lymphoid, Myeloid and Plasma Cell Neoplasms – All Facilities
NPCR Data Quality Audits – Quality & Completeness
NPCR SS2018 Errors, Recodes and Record Reviews

75

2021-2022 Data Quality Audits (FCDS & NPCR)

76

- **2022 FCDS Annual Data Quality Audits**
  - Neuroendocrine System Tumors – Part I and Part II
    - 2018 Diagnosis Year – Analytic Cases Only
    - 2019 Diagnosis Year - Analytic Cases Only
    - **All Facilities in Two Parts – 2000+ Cases**
  - Lymphoid, Myeloid and Plasma Cell Neoplasms
    - 2020 Diagnosis Year – Analytic Cases Only
    - **All Facilities at One Time – 2000+ Cases**
    - **Four Webinars – 2 before the audit and 2 following the audit**
- **NPCR Audits (2018 DX Year) – Data Quality Evaluation (DQE) and Completeness of Data Reported**
  - Part I – Data Validation – Abstract Visual Editing and Consolidation Records Review (1200 Records)
    - Melanoma Skin, Bladder, Pancreas, Kidney and Renal Pelvis, Ovary – 15,695 data elements - 97.9% Accuracy
  - Part II – Data Completeness – 365 Cases – Code 9 Use: All 3 Grade Items, All Treatment, Tumor Size, SS2018 – Summary Slide
- **NPCR SS2018 Errors, Recodes and Record Reviews**
  - 184 Histology Codes (Lymphoid, Myeloid, Plasma Cell) – cases not coded as 7 (disseminated – distant) - review histology/stage
  - 325 Individual Testis Cases DX 2019-2021 (stage) – no localized or regional nodes, only – review LVI, text, stage
  - SS2018 EDIT Allowed Stage = 1 or 9 / Stage Must = 7 for Chronic/Acute - Myeloid/Lymphoid Leukemia, MPN, MDS, 2010-2021
  - SS2018 Manual Error - Testis LVI – NO Testis Cases + LVI were Staged Local or Reg Nodes due to error

76

2020-2022 Neuroendocrine

77

2022 FCDS DATA VALIDATION AUDIT with E-PATH VERIFICATION

Diagnosis Year: 2018 or 2019

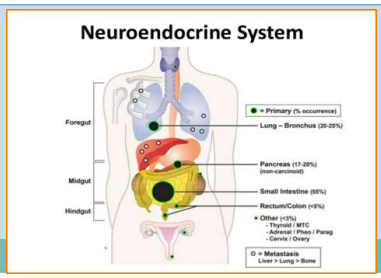
Cancer Site: Neuroendocrine System

(Neuroendocrine Tumor, NOS + Neuroendocrine Carcinoma, NOS +

Unique Specified Neuroendocrine Histologic Types – See Histology Code Table)

Hospital Analytic Cases Only

Facilities: Appendix A



Neuroendocrine Tumors	Histology
Large Cell Neueoendocrine Carcinoma	8013
Small Cell Carcinoma	8041
~~Oat Cell Carcinoma- OBSOLETE~~	~~8042~~
Small Cell Carcinoma, Fusiform Cell	8043
Small Cell Carcinoma, Intermediate Cell	8044
Mixed Small Cell Carcinoma – Usually coded Incorrectly	8045
Insulinoma	8151
Glucagonoma	8152
PP/PYY producing tumor	8152
Gastrinoma	8153
MINEN (Mixed Neueoendocrine-Nonneuroendocrine Neoplasia)	8154
VIPoma	8155
ACTH-producing Tumor	8158
Carcinoid Tumor	8240
Neuroendocrine Carcinoma, well differentiated	8240
Enterochromaffin cell carcinoid	8241
Enterochromaffin-like cell tumor, malignant	8242
Goblet Cell Carcinoid	8243
Mucinous Carcinoid	8243
MANEC (Mixed Neuroendocrine-Adenocarcinoma)	8244
Mixed Neuroendocrine Carcinoma	8244
Adenocarcinoid Tumor – MISCODED LOTS when not BOTH ADENO & CARCINOID	8245
Neuroendocarcinoma (NEC) - poorly differentiated neuroendocrine neoplasm	8246
Neuroendocrine Carcinoma, NOS	8246
Merkel Cell Carcinoma	8247
Primary Cutaneous Neuroendocrine Carcinoma	8247
Atypical Carcinoid Tumor	8249
Neuroendocrine Tumor, Grade 2	8249
Atypical Carcinoid Tumor	8249
Neuroendocrine Tumor, Grade 3	8249
PEComa, malignant	8714
PanNET (Pancreatic Neuroendocrine Tumor) Grade 1	
PanNET (Pancreatic Neuroendocrine Tumor) Grade 2	
PanNET (Pancreatic Neuroendocrine Tumor) Grade 3	
Calcitoninoma - a type of PanNET	
CRHoma - a type of PanNET	
GRFoma - a type of PanNET	
GRHRHoma - a type of PanNET	
Islet Cell Tumor - a type of PanNET	8150
Ppoma - a type of PanNET	8152

77

2020-2022 Neuroendocrine System Audit

78

- Most cases were Lung or GI Tract. Few Merkel Cell and some Pancreas
- Determining a Primary Site with Limited Imaging & Workup
- Use of Definitive Terminology versus Use of Ambiguous Terminology
- How e-pathology reports are used in FCDS Audits
- Following Instructions is to Your Benefit not FCDS' – read them
- Race/Ethnicity often not documented – Non-Hispanic Surname List
- Over-Abbreviation makes some abstracts impossible to decipher
- FNA of a Tumor is NOT Cytology - Cytology is defined as 'cells suspended in body fluid such as peritoneal fluid, pericardial fluid, urine suspension or other body fluid suspensions in which cells have been removed from the body and float in fluid'.
- FNA is a direct biopsy of a tumor – not floating cells in body fluids – it is a biopsy
- Think of FNA the same as a Bone Marrow Biopsy – it is a tumor biopsy not cytology
- DX Confirmation for FNA should be coded as '1' histology not '2' cytology

All-in-All Registrars really did do a pretty good job

78

2022 Lymphoid and Myeloid Neoplasms Audit

79

FCDS DATA VALIDATION AUDIT with E-PATH VERIFICATION

Diagnosis Year: 2020

Cancer Site: Lymphoid and Myeloid Neoplasms

Includes;

Any Lymphoma (Nodal/Extra-Nodal), Any Plasma Cell Neoplasm,

Myelodysplastic Syndrome (MDS), Myeloproliferative Neoplasm (MPN),

Acute Leukemia (myeloid/lymphoid), Chronic Leukemia (myeloid/lymphoid)

Any ICD-O-3 Histology Code 9590-9992

Hospital Analytic Cases Only

Facilities: Appendix A

2. OBJECTIVES

- This audit is primarily focused on examining the registrar's assessment, application and use of histology coding rules and instructions for lymphoid and myeloid neoplasms. These neoplasms require an external reference to correctly code the histology and to correctly assign stage for most cases. Lack of use or not understanding the key references will result in incorrect/inaccurate/inconsistent/incomplete histology coding and stage assignment.
- The audit will include a specific comparison of e-path confirmed histology code to registrar-coded histology.
- Key Data Items include; Date of Diagnosis, Diagnostic Confirmation, Primary Site, Histology, Stage, Treatment
- Assess the understanding and use of the Hematopoietic Database and Hematopoietic Manual for reporting
- Assess the validity and completeness of text, codes and text-supported codes provided to FCDS as a part of routine cancer case submission among selected Florida hospitals and ambulatory care facilities actively reporting to the FCDS (data reliability, data quality, reliability, reproducibility).
- Assess the validity of data submitted when source abstract codes are compared to e-pathology coded data.

NOTE: The Hematopoietic and Lymphoid Neoplasm Database, Hematopoietic Coding Manual, and Hematopoietic Diagnostic Confirmation Instructions will be of primary importance and a key national reference for this audit.

3. ELIGIBILITY

- ALL Option 2-5 Facilities will be included in this audit. Number of cases will be stratified by 2020 reporting year caseload for any primary site with histology 9590-9992 – analytic cases only (see below Class of Case).
- A facility may be selected for more than 1 audit during the 5-year cycle using the enhanced facility select criteria.
- A facility may have more than 1 reported cancer selected for this audit.
- Case Selection will be based upon the following criteria:
  - Date of Diagnosis 01/01/2020-12/31/2020
  - Primary Site(s) = Any

Histology-Driven Case Selection	# Cases
Histology Codes 9590-9992	1000
TOTAL	1000

  - Behavior = 3 (malignant)
  - Central Sequence = 00 (only 1 cancer ever reported)
  - ICD-O-3 Histology – 9590-9992
  - Class of Case = 10, 11, 12, 13, 14, 20, 21, 22 (hospital analytic – diagnosed and/or treated at facility)
- Case Selection will be stratified by 2020 reporting year caseload for combined lymphoid/myeloid neoplasms.
- Pathology Selection will be based on any e-pathology report(s) with Date of Specimen within 30 days of the original Date of Diagnosis (plus or minus 30 days) as documented/coded on the original case abstract.

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NPCR SS2018 Errors

80

- Errors effected 2018-2021 cases – some cases still coming in incorrectly
- Problems were in software, edits and SS2018 Instructions
- Issue #1 – Testis Stage – about 350 cases
  - An error in SS18, v2.0, for the testis chapter, schema ID 00590, was identified last year which incorrectly shifted cases to Regional by Direct Extension Only (code 2) or Regional by BOTH Direct Extension AND Regional Lymph Node(s) involved (code 4). As a result, the stage distribution was incorrectly inflated for these groups and reduced for 1 & 3.
- Issue #2 – Hematologic Malignancies – more than 15,000 cases
  - Two data quality issues were identified related to hematologic malignancies, an increase in unknown stage and localized stage for myeloma cases and an increase in HemeRetic cases coded to a stage other than Distant (7) for chronic and acute leukemia, MDS, MPN and other lymphoid and myeloid neoplasms with specific histologies.

80

NPCR SS2018 Errors – Myeloid/Lymphoid/Plasma Cell Neoplasms

81

- 184 Histology Codes/Stage for Review – 2010 and Later Diagnosis Year

ICD-O-3	Name	Reportability
9590/3	Malignant lymphoma, NOS	for cases diagnosed 1978 and later
~~9591/1~~	~~Monoclonal B-cell lymphocytosis, non-CLL type~~	~~This neoplasm is not reportable~~
9591/3	Non-Hodgkin lymphoma, NOS	for cases diagnosed 1978 and later
9664/3	Hodgkin lymphoma, nodular sclerosis, cellular phase	for cases diagnosed 1978 - 2009
9670/3	Malignant lymphoma, small B lymphocytic, NOS	for cases diagnosed 1978 - 2009
9671/3	Lymphoplasmacytic lymphoma	for cases diagnosed 1978 and later
9673/3	Mantle cell lymphoma	for cases diagnosed 1992 and later
~~9680/1~~	~~EBV-positive mucocutaneous ulcer~~	~~This neoplasm is not reportable~~
9731/3	Solitary plasmacytoma of bone	for cases diagnosed 1978 and later
9732/3	Plasma cell myeloma	for cases diagnosed 1978 and later
9733/3	Plasma cell leukemia	for cases diagnosed 1978 - 2009
~~9740/1~~	~~Cutaneous mastocytosis~~	~~This neoplasm is not reportable~~
9740/3	Mast cell sarcoma	for cases diagnosed 1978 and later
~~9741/1~~	~~Indolent systemic mastocytosis~~	~~This neoplasm is not reportable~~
9742/3	Mast cell leukemia	for cases diagnosed 1978 and later
9762/3	Heavy chain diseases	for cases diagnosed 1992 and later
9808/3	Mixed-phenotype acute leukemia, B/myeloid, not otherwise specified	for cases diagnosed 2010 and later
9809/3	Mixed-phenotype acute leukemia, T/myeloid, not otherwise specified	for cases diagnosed 2010 and later
9811/3	B-lymphoblastic leukemia/lymphoma, NOS	for cases diagnosed 2010 and later
9812/3	B-lymphoblastic leukemia/lymphoma with t(9;22)(q34.1;q11.2); BCR-ABL1	for cases diagnosed 2010 and later
9813/3	B-lymphoblastic leukemia/lymphoma with t(v;11q23.3); KMT2A-rearranged	for cases diagnosed 2010 and later

text	lymphoid/non leukemia
text	SS2018 = 7 (correct)
text	S2018 not = 7 (error)
text	SS2018 = 7 (missed)
~~text~~	not reportable
~~text~~	not reportable/SS2018 not = 7

81

NPCR SS2018 Errors – Testis Cases (LVI & Stage)

82

325 Facility Cases/Stage for Review – 2019-2021 Diagnosis Years

Se	Original SS201	LV	Standard Phrasing Added to Abst Remarks Text	Status	Reviewed SS2018	Comments
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	confined to testis
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	invasion of rete testis - confined of testis
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	7766	7766	physician augmentation only
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	invasion of rete testis - confined of testis
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of spermatic cord & hilar soft tissue with positive nodes
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of hilar soft tissue with positive nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	3	invasion of rete testis with positive nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	confined to testis
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	7766	7766	physician augmentation only
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	confined to testis
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	7	regional retroperitoneal & distant mediastinal nodes on imaging
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	4	invasion of spermatic cord with positive nodes
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	3	invasion of rete testis with positive nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	4	invasion of spermatic cord with positive nodes
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of spermatic cord with positive nodes
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of hilar soft tissue with positive nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	2	invasion of hilar soft tissue
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	2	invasion of hilar soft tissue
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	confined to testis
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	invasion of rete testis - confined of testis
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of epididymis with positive nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	confined to testis
0	4	1	2022 NPCR Testis Review - Error in SS2018 Manual	no change	4	invasion of epididymis, spermatic cord & scrotum with + nodes
0	2	1	2022 NPCR Testis Review - Error in SS2018 Manual	Corrected SS2018	1	invasion of tunica albuginea - confined of testis

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2022 Florida Cancer Reporting Requirements

Megsys Herna, BA, CTR

FCDS Virtual Annual Meeting

August 18, 2022

83

FCDS/NPCR 2022 Reporting Requirements

- New, Revised, and Removed Data Items
- New Reportable ICD-O-3 Codes
  Clarifications
- Updates to Solid Tumor Rules
  September 2021
- New Hematopoietic Database
  August 2021
- Updated Manuals
  - SSDI
  - Grade
  - STORE
  - SEER Summary Stage
  - FCDS 2022 DAM
- FCDS EDITS METAFILE Posted July 1, 2022

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FCDS Conversion and Maintenance July 1, 2022

Data conversion to the NAACCR Version 22

System Maintenance

Scheduled through Monday, July 18, 2022

- IDEA was disabled

85

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New Data Item Required for FCDS in 2022

- Item # 344 Tobacco Use Smoking Status

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New Site-Specific Data Items Required for FCDS in 2022

- Item # 3829 Esophagus and EGJ Tumor Epicenter (esophagus, squamous cell only)
- Item # 3956 P16 (cervix)

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Data Items No Longer Required for FCDS in 2022

- 3855 HER2 OVERALL SUMMARY
  - HER2 Overall Summary was collected for Esophagus and Esophagogastric Junction and Stomach for cases diagnosed in 2021 only
- Tobacco Use - Cigarette
- Tobacco Use - OthSmoke
- Tobacco Use - Smokeless Tob
- Tobacco Use - NOS

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2022 ICD-O-3.2

- ICD-O-3.2 Update includes:
  - New ICD-O codes
  - Terminology updates
  - Reportability updates

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New Reportable Neoplasms As of 01/01/2022

- 8480/2 - LAMN – low grade appendiceal mucinous neoplasm (C18.1)
- 8480/2 - HAMN – high grade appendiceal mucinous neoplasm (HAMN (C18.1)
- 8213/2 - Serrated dysplasia, high grade (C160-C166, C168-C169, C170-C173, C178-C179)
- 8210/2 - Adenomatous polyp, high grade dysplasia (C160-C166, C168-C169, C170-C173, C178-C179)
- 8144/2 - Intestinal-type adenoma, high grade (C160-C166, C168-C169, C170-C173, C178-C179)
- 9222/3 - Chondrosarcoma, grade 1 (C40, C41)
- New Histology Codes with Associated New Histology Terms
  - 8455/3 - Intraductal oncocytic papillary neoplasm with associated invasive carcinoma (C250-C254, C257-C259)
  - 8483/3 - Adenocarcinoma, HPV-associated C530-C531, C538-C539)
  - 8484/3 - Adenocarcinoma, HPV-independent, NOS C530-C531, C538-C539)
  - 8859/3 - Myxoid pleomorphic liposarcoma
  - 8976/3 - Gastroblastoma (C16.0 – C16.9)
  - 9111/3 - Mesonephric-like adenocarcinoma
  - 9366/3 - Round cell sarcoma with EWSR1-non-ETS fusions
  - 9367/3 - CIC-rearranged sarcoma
  - 9368/3 - Sarcoma with BCOR genetic alterations

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Pancreatic Tumors Clarification

The IPMN Path Description must include at least one of the clarifying descriptive terms:

- IPMN, with high grade dysplasia
- IPMN, non-invasive
- IPMN, in-situ
- IPMN, associated with invasive carcinoma
- IPMN, invasive

❖A pancreatic tumor (IPMN/IOPN/ITPN/CPEN) seen on endoscopic ultrasound without biopsy is not reportable unless clinically malignant due to metastasis

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Pancreatic Tumors

Reportable	ICD-O-3	Description
Yes	8150/3	Cystic Pancreatic Endocrine Neoplasm, invasive (CPEN)
Yes	8163/2	Papillary neoplasm, pancreatobiliary-type, with high grade intraepithelial neoplasia
Yes	8163/3	Pancreatobiliary-type carcinoma
Yes	8240/3	Neuroendocrine Tumor, Grade 1 (NET GR1) of the pancreas
Yes	8246/3	Neuroendocrine Carcinoma of the pancreas
Yes	8249/3	Neuroendocrine Tumor, Grade 2 (NET GR2) of the pancreas
Yes	8440/3	Cystadenocarcinoma of the pancreas
Yes	8452/3	Solid Pseudo-Papillary Neoplasm (SPN) of the pancreas
Yes	8453/2	Intraductal Papillary Mucinous Neoplasms (IPMN) of the pancreas with high grade dysplasia
Yes	8453/2	Intraductal Papillary Mucinous Neoplasm (IPMN) of the pancreas, non-invasive
Yes	8453/3	Intraductal Papillary Mucinous Neoplasm (IPMN) with an associated invasive carcinoma
Yes	8453/3	Intraductal Papillary Mucinous Carcinoma, invasive
Yes	8470/2	Mucinous Cystic Neoplasm (MCN) of the pancreas with high-grade dysplasia
Yes	8470/2	Non-invasive Mucinous Cystic Neoplasm (MCN) of the pancreas with high-grade dysplasia
Yes	8470/2	Mucinous Cystadenocarcinoma, non-invasive (MCN)
Yes	8470/3	Mucinous Cystadenocarcinoma of the pancreas
Yes	8470/3	Mucinous Cystic Neoplasm (MCN) of the pancreas with invasive carcinoma
Yes	8471/3	Papillary Mucinous Cystadenocarcinoma of the pancreas
Yes	8500/3	Infiltrating Duct Carcinoma of the pancreas
Yes	8503/2	Intraductal Oncocytic Papillary Neoplasm (IOPN) of the pancreas with high grade dysplasia
Yes	8503/2	Intraductal Oncocytic Papillary Neoplasm (IOPN) of the pancreas, noninvasive
Yes	8503/2	Intraductal Tubule-Papillary Neoplasm (ITPN) of the pancreas with high grade dysplasia
Yes	8503/2	Intraductal Tubule-Papillary Neoplasm (ITPN) of the pancreas, noninvasive
Yes	8503/3	Intraductal Tubule-Papillary Neoplasm (ITPN) with invasive carcinoma
Yes	8552/3	Mixed acinar-ductal carcinoma
No	n/a	Histologies with Behavior Code of /0 (benign)
No	n/a	Histologies with Behavior Code of /1 (borderline)
No	n/a	Serous cystadenomas, solid and cystic papillary (Hamoudi) tumors, lympho-epithelial cysts and simple cysts are all benign and not reportable

References: 2010 WHO Classification of Tumours of the Pancreas; Pathologe. 2011 Nov;32 Suppl 2:332-6. doi: 10.1007/s00292-011-1515-2; Ann Surg. 2004 May; 239(5): 651–659), 2011 ICD-O-3 Updates, 2015 SEER Program Coding and Staging Manual, and NCI SEER Ask A SEER Registrar.

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FCDS 2022 DAM Correction

- ~~8323/3 – clear cell papillary renal cell carcinoma of kidney has been reclassified as a ISUP Grade 1 (low grade neoplasm) which is not malignant. Therefore, no longer reportable. The histology/behavior for this tumor is now 8323/1. Do not report these~~
- **8323/3 Mixed cell adenocarcinoma is reportable**

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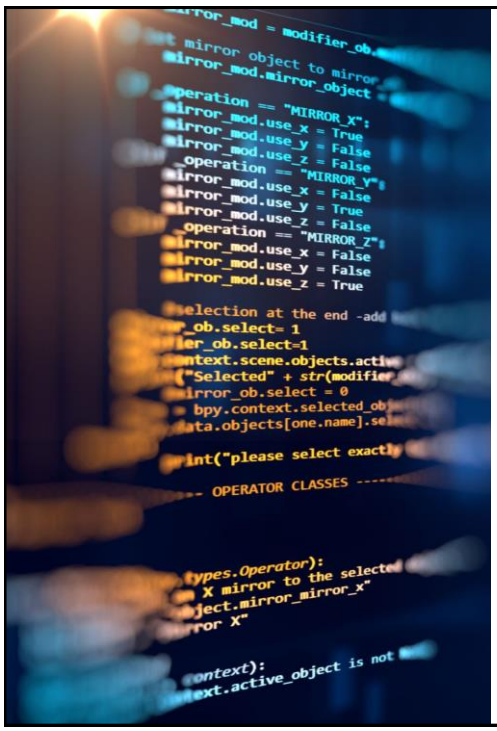

FCDS EDITSv22B

- The FCDS EDITSv22B metafile dated 7/29/22 is available on the FCDS Website under Downloads
- The metafile and associated files include all new and revised standard and Florida-specific edits. These are the three ancillary excel files also posted:
  - FCDS v22B Change Spreadsheet
  - FCDS New Error Messages v22B
  - FCDS Metafile v22B Error Messages Report
- Data submitted in V22 XML must use the FCDS EDITSv22B metafile (or most current)

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New FCDS Treatment Edits verify that treatment modalities are not coded unknown

- RX Summm--Surg Prim Site must not = 99
- Reason for No Surgery must not = 9
- RX Summ--Scope Reg LN Sur must not = 9
- Regional Nodes Examined must not = 99
  - Exceptions: If Schema ID is not 00790, 00795, 00821, 00822, 00830, 99999
    - and Primary Site is not C420, C421, C423, C424, C589, C700-C709,
    - C710-C729, C751-C753, C761-C768, C770-C779, C809
- RX Summ--Surg OthReg/Dis must not = 9
- Phase I Radiation Treatment Modality must not = 99
- RX Summ--Brm must not = 99
- RX Summ--Chemo must not = 99
- RX Summ--Hormone must not = 99
- RX Summ--Transplnt/Endocr must not = 99
- RX Summ—Other must not = 9
- RX Summ--Treatment Status must not = 9

95

Solid Tumor Rules Updated September 2021

Updates:
Colon
Head & Neck
Lung
Breast
Kidney
No Updates:
Melanoma
Urinary
Other Sites

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2022 FCDS DAM Summary

ALL CHANGES APPEAR IN RED THROUGHOUT THE MANUAL

- ✓ Legal Section – Added HIPAA Privacy Rule for Public Health
- ✓ Section I – Guidelines for Cancer Reporting
  - ✓ Clarification – Reporting Chronic Myeloid/Lymphoid Neoplasms
  - ✓ Clarification – 2021 and 2022 New Histology Terms/Codes
  - ✓ Clarification – Reportable/Non-Reportable Neoplasms
  - ✓ Clarification – Pancreatic Neoplasms According to SEER Rules
  - ✓ Clarification – FCDS NEVER Receives Update/Modify Records
  - ✓ Clarification – Definitive versus Ambiguous Terminology
  - ✓ 2022 FCDS Casefinding List (ICD-10-CM) – General List
  - ✓ 2022 FCDS Casefinding Detail List (ICD-10-CM) – Appendix O
  - ✓ Updated Required/Recommended Desktop References
- ✓ Section II – General Abstracting Instructions
  - ✓ Tobacco Use Smoking Status – New Data Item
  - ✓ Discontinue ALL Previous Smoking Fields for All Cases
  - ✓ Significant Revision to Coding Lymph Vascular Invasion
  - ✓ Clarification for Coding FNA of Lymph Node(s)
  - ✓ Esophagus and EGJ Tumor Epicenter – New SSDI
  - ✓ P16 – New SSDI – Cervix Only
  - ✓ HER2 Summary – removed from Stomach/Esophagus
  - ✓ New Section – NO TREATMENT = 99 ALLOWED
  - ✓ Clarification – Tumor Ablation Section Expanded
- ✓ Appendix F – CoC Removed Many Site-Specific GI Surgery Codes (10-20)
- ✓ Appendix P – Resources for Registrars – Completely Revised
- ✓ Appendix R – 2022 ICD-O-3.2 Updates
- ✓ Appendix S – Summary of Changes

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2022 FCDS DAM Summary

BI-RADS, LI-RADS, PI-RADS - - DO NOT USE Lung-RADS4A, 4B, 4C
Imaging-Only versus Imaging followed by Positive Biopsy

- ✓ Please Refer to 2022/2023 FCDS DAM and 2022/2023 SEER Appendix E
- ✓ LIVER: LI-RADS also referred to as LR-4 or LR5 - Use the date of the LR-4 (probable HCC; high probability but not 100% certainty observation is HCC) or LR-5 (definitely HCC; 100% certainty observation is HCC) scan as the date of diagnosis when it is the earliest confirmation of the malignancy.If there is no statement of the LI-RADS score but there is reference that a lesion is in the Organ Procurement and Transplantation Network (OPTN) 5 category, report based on the OPTN class of 5. OPTN class 5 indicates that a nodule meets radiologic criteria for hepatocellular carcinoma.
- ✓ Prostate: PI-RADS4 and PI-RADS5 - PI-RADS categories 4 (high-clinically significant cancer is likely to be present) and 5 (very high-clinically significant cancer is highly likely to be present) are reportable, unless there is other information to the contrary.
- ✓ Breast: BI-RADS4 and Bi-RADS5 - The American College of Radiology defines Category 4 as “Suspicious.” The descriptions in categories 4, 4a, 4b, and 4c are not diagnostic of malignancy. They all represent a percentage of likelihood, the highest being 4c which is greater than 50% but less than 95% likelihood of malignancy. The ACR states "This category is reserved for findings that do not have the classic appearance of malignancy but are sufficiently suspicious to justify a recommendation for biopsy. "Category 5 is "Highly Suggestive of Malignancy." "Suggestive" is not reportable ambiguous terminology. ACR states that Category 5 has a "very high probability" of malignancy, but again, it is not diagnostic.
- ✓ FDCS does not mince the ambiguous terms – ALL are Date of Dx with + Biopsy
- ✓ When No Biopsy – Not Reportable with only RADS4 or RADS5

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FCRA/FCDS Joint Task Force 2022-2023

Steven Peace, BS, CTR – Co-Chair – FCDS Senior Manager

Marcia Hodge, CTR – Co-Chair - UF Health Shands Hospital – FCRA President

Lindsey Mason, BS, CTR – Advent Health Central Florida

Jennie Jones, MSHI-HA, CHDA, CTR – H Lee Moffitt Cancer Research Institute

Barbara Dearmon, BS, CTR – Ascension St Vincent's Healthcare

Cheryl Taft, CTR – Genesis Care U.S. (formerly 21st Century Onc)

Joyce Allen, CTR – Registry Solutions, Inc.

Mayra Espino, BA, CTR – HCA Healthcare & Independent Contractor

Yolanda Topin, CTR – Vendor Representative (CRStar by ERS)

Gary Levin, BA, CTR – FCDS Deputy Project Director

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2022-2023 Projects

- NEW LOGO
- Announcements & Introductions
- FCRA/FCDS Inquiries – emailed to Co-Chairs – Registrar Concerns and Complaints and Inquiries
- Review of FCRA Projects & Status – FCRA Conference (Agenda – Topics – Speakers), FCRA Website
- Review of FCDS New Projects, Deadlines, Current Reporting Status, New Version & Software Preparations, FCDS Audits, Edits, IDEA, Education/Training Planning, Problems, FCDS Conference
- Project # 1 - Brochure – 'FCRA/FCDS Guide to Hiring Contractors for Cancer Reporting in Florida'
- Project # 2 - 'Florida Internship Sharing Program: Beyond the CTR Credential: Ensuring a High-Quality Skills Set for New Florida Registrars'

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2022-2023 Education & Training Plan

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FCDS VIRTUAL ANNUAL CONFERENCE

8/18/2022

STEVEN PEACE, CTR

KNOWLEDGE IS POWER
APPLY YOUR POWER

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Presentation Outline

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- What Goes Into FCDS Education & Training Plan
- 2022-2023 FCDS Education & Training Plan
  - FCDS Training Plan Components
  - High Expectations for Training in Florida
  - Set Equally High Expectations for Contractors
  - Fundamental Learning Collaborative (FLccSC)
  - 2022 FCDS Abstractor Code Test Question Bank
  - 2022 Virtual FCDS Annual Meeting Series
  - 2022-2023 FCDS Webcast Schedule & Topics
  - FCDS DAM Appendix P – Resources for Registrars
  - ABC Course – Use as Outline for New Registrar Training
  - List of Available Online References for Education & Training
  - NAACCR Cancer Surveillance Webinar Series – Monthly
  - NAACCR CTR Exam Preparation and Review Webinar Series – twice a year
  - NAACCR Understanding Central Cancer Registries – free

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What Goes Into FCDS Education/Training Planning

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- FCDS Data Quality Program Methods
- National and FCDS Data Quality Standards
- Review of New Data Items & Instructions
- Review of Changes to Abstracting/Coding Resources
- Summary Results from Visual Editing - Feedback
- Summary Results from Re-Casefinding Audits - Feedback
- Summary Results of Technical Questions - Feedback
- Results of FCDS/NPCR Data Quality Audits - Clarifications
- NPCR DER Trends & Areas for Improvement - Trends
- FCDS DQIR Trends & Areas for Improvement - Trends
- Requests from Registrars and Managers - Requests
- Cancer Site/Type Presentations – General Knowledge & Latest Developments
- New Topics in Cancer Care – Staying Current in Screening, Diagnosis, Treatment
- Other Topics as Identified – FCRA/FCDS Task Force Input

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FCDS Sets High Expectations for Registrar Knowledge & Skills

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- Trained/Qualified Personnel must perform abstracting
- Working knowledge of basic human anatomy
- Working knowledge of medical terminology, diagnostic testing, classification, treatment and outcomes as related to cancer
- Every registrar/abstractor planning to work in the State of Florida is required to obtain an individual FCDS Abstractor Code. This requires annual testing regardless of CTR status
- FCDS will not accept any cases from individuals without an *Active/Current* FCDS Abstractor Code
- Know Section I of the FCDS DAM – Reporting Instructions
- FC/QC Monitor – Monitors All Deadlines/Audit Outcomes
- YOU are Responsible for Quality of Your Contractors Work
- Abstracting Non-Analytic and Historical Cancers for Florida

Please make sure ALL of your staff have attended training on EACH of the new 2022 standards and ALL of the new and updated manuals, instructions, rules, guidelines, codes, conversions and everything else that is occurring within your 2022 compliant software

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FCDS Sets Equally High Expectations for ALL Contractors

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- Managing Interim Cancer Registry Service Providers
  - 'FCRA/FCDS Guide to Hiring Contractors for Cancer Reporting in Florida'
  - Know your role in their process – direct access to management
  - Do the Cancer Registry Specialists have Florida Experience
  - Screening, Credentials and Experience of Staff doing the work
    - Are staff current with knowledge and requirements you need
    - Are you getting experienced abstractors or brand new CTRs
    - Are staff familiar with Florida Reporting Requirements, FCDS DAM and FCDS QC
  - Supervision of Staff doing the work – ongoing and post-submit
    - Do Abstracts have Quality Checks before Transmission to State
  - Size your work project with reasonable milestones
  - What are Fees/Structure and Detail Responsibilities (corrects)
  - Specifically Discuss How to Manage Post Staffing Audits
  - Be clear with Deadlines and Expectations – Feedback to Managers
  - Are there penalties for under-performance or non-performance (during/post contract)

FCRA | FCDS Task Force

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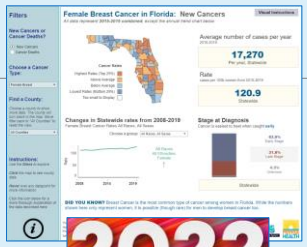
FCDS Florida Statewide Cancer Registry
Florida Cancer Data System

2022 FCDS Virtual Annual Conference

4-Part Series –Thursdays @ 1pm from 8/11/2022-9/1/2022
Registration Required for Each Webinar
https://fcds.med.miami.edu/inc/educationtraining.shtml

CTR



CTR

FCRA | FCDS Task Force

National Childhood Cancer Registry

The Childhood Cancer STAR Project

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2022 Virtual FCDS Annual Meeting

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Session	Date/Time	Estimated Time	2022 FCDS Virtual Annual Conference - Topic
FCDS Session 1	8/11/2022 1pm-3pm	1:00pm-1:10pm	Welcome to the 2022 FCDS Virtual Annual Meeting Webinar Series
		1:10pm-1:30pm	DOH and FCDS Updates – State of the State
		1:30pm-1:50pm	Social Determinants of Health
		1:50:pm-2:10pm	Genetics Primer – Genetics for Central Cancer Registry
		2:10pm-2:30pm	Data Visualization Platforms
		2:30pm-2:45pm	Lung Cancer Survival Among Male Florida Career/Volunteer Firefighters
		2:45pm-3:00pm	Becoming a CTR – NCRA Clinical Practicum & CTR Exam Core Competencies
FCDS Session 2	8/18/2022 1pm-3pm	1:00pm-1:15pm	2020-2021 Data Acquisition Summary & 2022 Completeness of Reporting
		1:15pm-1:30pm	2021 QC Activity Summary & Findings (Audits/QC Review/NPCR DQE)
		1:30pm-2:00pm	2022 Audits – 2019 DX NET/NEC - 2020 DX Myeloid/Lymphoid Neoplasms
		2:00pm-2:30pm	What's New in 2022? 2022 Florida Cancer Reporting Requirements
		2:30pm-2:40pm	FCRA/FCDS Task Force – Florida Guide for Contracted Abstracting Services
		2:40pm-2:50pm	2022-2023 FCDS Education and Training Plan
		2:50pm-3:00pm	Annual FCDS Jean Byers and Pat Strait Awards
FCDS Session 3	8/25/2022 1pm-3pm	1:00pm-2:00pm	NCCR & STAR Projects – Pediatric, Adolescent and Young Adult Cancers
		2:00pm-3:00pm	What's New in Cancer Care –Diagnosis, Workup, Tumor Markers, TX
FCDS Session 4	9/01/2022 1pm-3pm	1:00pm-2:00pm	Myeloid Neoplasms – MPN, MDS, Acute/Chronic Myeloid Leukemia
		2:00pm-3:00pm	Lymphoid Neoplasms – Nodal/Extra-Nodal Lymphoma, Lymphoid Leukemia, Plasma Cell Neoplasms, the Lymphoma/Leukemia Group

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2022-2023 FCDS Webcast Schedule

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Date	2022-2023 FCDS Webcast Series - Topics
9/22/2022	FCDS Annual Conference Summary – 2022 Requirements
10/20/2022	Lung & Thoracic Neoplasms – WHO 5th edition Classification, Volume 5; 2021
11/17/2022	Brain & CNS Neoplasms (includes pediatric) – WHO 5th ed Classification, Volume 6; 2021
12/15/2022	Common Registrar Technical Questions and Clarifications from Visual Editing
1/19/2023	Myeloid Neoplasms – 2022 Updates & 2022 Audit Findings
2/16/2023	Lymphoid Neoplasms – 2022 Updates & 2022 Audit Findings

2022 FCDS DAM - Appendix P – Resources for Registrars, Outline for ABC Learning, Other Educational Resources

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Required Desktop References – Section I of 2022 DAM

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REQUIRED DESKTOP REFERENCES

Required Reference	Ordering Information
Current FCDS *Data Acquisition Manual, 2022*	FCDS, Florida Cancer Data System PO Box 016960 (D4-11) Miami, FL 33101 http://fcds.med.miami.edu/inc/downloads.shtml
FCDS IDEA – FCDS Secure Web-Based Software to abstract cases, upload batched cases, access FLccSC, QC Review, Audits	https://fcds.med.miami.edu/inc/welcome.shtml
FLccSC Learning Management System FCDS Abstractor Code Test, FCDS Continuing Education Webcast Series, NAACCR Webinar Recordings, FCDS Annual Conference, etc.	https://fcds.med.miami.edu/inc/flccsc.shtml
FCDSv22 EDITS Metafile	https://fcds.med.miami.edu/inc/downloads.shtml
2022 Instructional Manuals/Guidelines	https://www.naaccr.org/v22referencepage/
Current *Solid Tumor Manual*, September 2021	http://seer.cancer.gov/registrars
Current *Grade Coding Manual*, v2.1	https://apps.naaccr.org/ssdi/list/
Current *Site-Specific Data Items Manual*, v2.1	https://apps.naaccr.org/ssdi/list/
Current SEER Site/Histology Validation List	https://seer.cancer.gov/icd-o-3/
Current *SEER Summary Stage Manual*	https://seer.cancer.gov/tools/ssm/
Current SEER RSA – Registrar Staging Assistant – online staging assistant	https://staging.seer.cancer.gov/
Current *SEER*Rx – Interactive Drug Database*	https://seer.cancer.gov/seertools/seerrx/
Current *Hematopoietic and Lymphoid Neoplasm Case Reportability and Coding Manual* and Hematopoietic Database (desktop or web-based versions available), 2022	https://seer.cancer.gov/seertools/hemelymph/
Current NAACCR ICD-O-3 Coding Guidelines – Annotated Histology List	https://www.naaccr.org/icdo3/
ICD-O-3.2 Excel Table downloadable from the IACR/WHO Website	Downloadable Excel File Version of ICD-O-3.2 http://www.iacr.com.fr/index.php?option=com_content&view=article&id=149:icd-o-3-2&catid=80&Itemid=545
International Classification of Diseases for Oncology, 3rd ed. Geneva, World Health Organization: 2000	The World Health Organization WHO Publications Center USA; 49 Sheridan Avenue; Albany, NY 12210 ISBN 9241545348 Order Number 11503350 http://www.who.int/classifications/icd/en/index.html

RECOMMENDED DESK REFERENCES

Recommended Book	Ordering Information
2022 CoC STORE Manual - CoC Standards for Oncology Registry Entry	American College of Surgeons (ACS) 55 East Erie Street Chicago, IL 60611-2797 *https://www.facs.org/quality-programs/cancer/ncdb/call-for-data/cocmanual2*
2022 SEER Program Code Manual	National Cancer Institute Publications Ordering Service P.O. Box 24128, Baltimore, MD 21227, 301-330-7968 https://seer.cancer.gov/tools/codingmanuals/
Cancer Registry Management Principles and Practice for Hospitals and Central Registries, 4th Edition, 2021	National Cancer Registrars Association https://www.ncra-usa.org/About/Store/Store-Professional-Resources/BKctl/ViewDetails/SKU/NCRCRMTXBK4ED ISBN 978-1-7329178-3-5
NAACCR *Standards for Cancer Registries Volume II: Data Standards and Data Dictionary*, current edition (v22)	North American Association of Central Cancer Registries, Inc. (NAACCR) 2121 West White Oaks Drive, Suite B Springfield, Illinois 62704-7412 Phone: (217) 698-0800 Fax: (217) 698-0188 http://www.naaccr.org
EDITS Software – EditWriter 5 and GenEdits5 Install EditWriter5 and the GenEdits5 Edit Engine to enable yourself and staff to read standard EDITS Logic used in your registry	https://www.cdc.gov/cancer/npcr/tools/edits/edits50.htm
NAACCR v22 EDITS Metafile	https://www.naaccr.org/standard-data-edits/
FCDS v22 EDITS Metafile	https://fcds.med.miami.edu/inc/downloads.shtml
Cancer Principles and Practice of Oncology, 10th edition	Lippincott Williams & Wilkins Publishers 227 East Washington Square Philadelphia, PA 19106-3780 ISBN-10: 1451192940 ISBN-13: 9781451192940
American Cancer Society Textbook of Clinical Oncology	American Cancer Society Vermont Division, Inc. 13 Loomis Street Montpelier, VT 05602 http://www.cancer.org ISBN-13: 978-0944235072 ISBN-10: 0944235077
CA: A Cancer Journal for Clinicians	Lippincott Williams & Wilkins Publishers P.O. Box 1600 Hagerstown, MD 21741-9910 301-223-2300 (Voice) http://caonline.amcancersoc.org/
CDC *Data Collection of Primary Central Nervous System Tumors, National Program of Cancer Registries Training Materials*, 2004	Cancer for Disease Control and Prevention (CDC) National Program of Cancer Registries 4770 Buford Hwy, NE, Mail Stop K-53 Atlanta, GA 30042 -3717 Phone: 1(888) 842-6355 Fax: (770) 488-4760 http://www.cdc.gov/cancer/npcr/training/btc/

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Annual Resources for Registrars Document

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APPENDIX P – REFERENCES AND RESOURCES FOR REGISTRARS – updated April 1, 2022

2022 References and Resources for Cancer Registrar		
2022 REQUIRED References	**Web Address For Source**	**Notes**
2022 FCDS Data Acquisition Manual (DAM)	http://www.fcds.med.miami.edu/inc/DAM.shtml	Details cancer data reporting guidelines and casefinding mechanisms for identifying reportable cancers.
2022 Casefinding List of ICD-10-CM Required Codes	http://www.fcds.med.miami.edu/inc/DAM.shtml	ICD-10-CM for 2022 Casefinding - General Range and Individual Code Lists are available in the FCDS DAM
2018 Solid Tumors MPH Rules, Sept 2021	https://seer.cancer.gov/tools/solidtumor/	On the home page click on "Information for Cancer Registrars", Solid Tumor Rules
2018 Heme/Lymph Neoplasm MPH Rules PLUS Interactive Online Heme/Lymph Database for Coding	http://seer.cancer.gov/seertools/hemelymph/	On the home page click on "Information for Cancer Registrars", Hematopoietic & Lymphoid Neoplasm Project
ICD-O-3.2 2022 Updates and Coding Materials Also See 2022 FCDS DAM for ICD-O-3 2022 Updates	https://seer.cancer.gov/icd-o-3/	On the home page click "Data Collection Tools", Errata and Clarifications".
IACR/WHO Master Histology/Behavior – ICD-O-3.2	http://www.iacr.com.fr/index.php?option=com_content&view=article&id=149:icd-o-3-2&catid=80&Itemid=545	Histology Code/Behavior Master List, 2022
Site-Specific Data Items Manual (SSDI Manual), SSDI Coding Instructions, and SSDI Coding Application, v2.1	https://apps.naaccr.org/ssdi/list/	SSDI Manual, v2.1
2018 Grade Manual, Grade Coding Instructions and Tables, and Grade Coding Application, v2.1	https://apps.naaccr.org/ssdi/list/	Grade Coding Manual, v2.1
SEER Summary Staging Manual 2018 and any errata Required for ALL 2022+ Cases, September 2021	http://seer.cancer.gov/tools/ssm/	SEER Summary Staging Manual, Sept 2021
SEER *Rx – Online Interactive Drug Database	http://seer.cancer.gov/seertools/seerrx/	A one-step lookup for coding oncology drug and regimen treatment categories in cancer registries
Collaborative Stage Data Collection System – v02.05 Part I Reference for Site-Specific Factor Coding ONLY.	http://www.cancerstaging.org/cstage	Collaborative Stage Data Collection System is no longer supported or in use in the United States beginning 1/1/2016. Used for Cases Dx 2004-2015
SEER*RSA (Registry Staging Assistant)	https://seer.cancer.gov/tools/staging/rsa.html	Assistance and Testing for Cancer Staging; Collaborative Stage Data Collection Summary Stage 2018 SEER EOD – Extent of Disease ALL SSDIs – ALL Grade Items
Brain & CNS Tumor Reporting	http://www.cdc.gov/cancer/npcr/training	Brain Tumor Registry Reporting Materials
TEXT DOCUMENTATION	http://www.cancerregistryeducation.org/tr	Free Download – NCRA Informational Abstracts – Guidelines for Text Documentation by Cancer Site

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APPENDIX P – REFERENCES AND RESOURCES FOR REGISTRARS – updated April 1, 2022

2022 References and Resources for Cancer Registrars	
2022 Casefinding/Reportable List	➢ 2022 FCDS Data Acquisition Manual (FCDS DAM) is the Primary Reference for Florida Requirements ➢ SEER Website – Resources for Registrars – Casefinding – FCDS Does Not Use Supplemental List
2022 Coding Manual and Instructions	➢ 2022 FCDS Data Acquisition Manual (FCDS DAM) is the Primary Reference for Florida Requirements ➢ 2022 CoC Standards for Oncology Registry Entry (CoC STORE) - https://www.facs.org/quality-programs/cancer/ncdb/registrymanuals/cocmanuals ➢ 2022 SEER Coding and Staging Manual - http://seer.cancer.gov/tools/codingmanuals/
2018 Solid Tumor Rules, September 2021	➢ MPH Rules and Database – Solid Tumors https://seer.cancer.gov/tools/solidtumor/
2018 Hematopoietic Database, current online version	➢ MPH Rules and Database – Heme/Lymph Neoplasms http://seer.cancer.gov/seertools/hemelymph/
ICD-O-3.2 Primary Site/Histology Codes – IACR/WHO	➢ https://seer.cancer.gov/icd-o-3/ ➢ ICD-O-3.2 Updates (2022 WHO) – Histology Master List and Synonyms – All Histology Codes ➢ Download the Master ICD-O-3.2 Histology Code and Behavior List from IACR/WHO at http://www.iacr.com.fr/index.php?option=com_content&view=article&id=149:icd-o-3-2&catid=80&Itemid=545 ➢ Hematopoietic Database for all codes 9590-9993 – includes rules and instructions for use
2018 Grade Manual and Coding Instructions, v2.1	➢ https://apps.naaccr.org/ssdi/list/
Site-Specific Data Items Manual (SSDI Manual), v2.1	➢ https://apps.naaccr.org/ssdi/list/
AJCC Cancer Staging Manual 8th Edition – not required	➢ http://www.springer.com/medicine
SS2018 Manual – Summary Stage 2018, September 2021	➢ http://seer.cancer.gov/tools/ssm/
SEER *Rx – Online Interactive Drug Database, current	➢ http://seer.cancer.gov/seertools/seerrx/
Internet Access to Online Resources	▪ http://fcds.med.miami.edu/inc/whatsnew_shtml ▪ http://www.facs.org/cancer ▪ http://www.cancerstaging.org/ ▪ 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
TEXTBOOK: Cancer Registry Management – Principles and Practice for Hospitals and Central Registries, 4th edition	➢ ISBN 978-0-7575-6900-5 (order your copy at http://ncra-usa.org/ or http://www.kendallhunt.com)
National Cancer Institute	➢ http://www.cancer.gov
Centers for Disease Control and Prevention	➢ http://www.cdc.gov/cancer
American Cancer Society	➢ http://www.cancer.org
Cancer Staging	➢ http://www.cancerstaging.org
NCCN	➢ http://nccn.org/
ASCO	➢ http://asco.org/

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Annual Resources for Registrars Document

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APPENDIX P – REFERENCES AND RESOURCES FOR REGISTRARS – updated April 1, 2022

Recommended Training Resources for New Registrars

FCDS has put together a listing of available Training Resources for New Registrars while we continue to work on updating our Abstracting Basics Course for the 2022 Standards. We hope this will help new registrars with reliable training resources and help along with the FCDS ABC Course Outline to cover the primary topics necessary to learn how to abstract and to understand the basics of what it takes to become a Cancer Registrar.

FCDS has never been in the business of training registrars to become CTRs. We primarily focus on training abstractors how to abstract cases from medical record source data and to code the abstracted data according to national data standards. It is normal to become confused and overwhelmed by the manuals, instructions, websites, and basic cancer information available.

Moreover, becoming a CTR requires additional training including but not limited to a thorough knowledge of the contents of the TEXTBOOK: *Cancer Registry Management – Principles and Practice for Hospitals and Central Registries, 4th edition.* ISBN 978-1-7329178-3-5 *(order at* https://www.ncra-usa.org/About/Store/Store-Professional-Resources/BKctl/ViewDetails/SKU/NCRCRMTXBK4ED

We hope this listing of available training resources will be of help in getting new registrars started. This is a complicated field and requires knowledge of many resources and manuals.

NAACCR also offers a FREE Cancer Registrar Training Guide on their Website that provides a 51-week guide to learning all things Cancer Registry Related including a Progress Tracking Form. Becoming a Cancer Registrar and becoming a Certified Tumor Registrar (CTR) is a lengthy process. You must be patient and thorough in your training and learning. Take your time. Most registrars recognize that it takes a good 2 years before you even know what you don't know. Then another 3 years to become proficient in the tools and resources required to work.
The NAACCR Cancer Registrar Training Guide, v4 was published in 2020 and is available at https://www.naaccr.org/wp-content/uploads/2020/05/Registry-Training-Guide-1.pdf

Recommended Resources for New Abstractor Training:

- **NCRA Accredited Cancer Certificate and/or Degree Programs** - https://www.ncra-usa.org/About/Become-a-Cancer-Registrar
- See FCDS DAM Section I – Required and Recommended Desktop References
- See Appendix P – Registry Resources
- See FLccSC Learning Management System and FCDS IDEA for Access to Recordings
- NEED ACCESS TO ALL 2022 Manuals, Tools and Guidelines/Instructions – Appendix P and https://www.naaccr.org/v22referencepage/
- SEER Site-Specific Modules and Self-Instructional Training - https://seer.cancer.gov/training/
- NPCR NETS Modules – available on FLccSC
- NAACCR Cancer Registrar Training Guide - https://www.naaccr.org/wp-content/uploads/2020/05/Registry-Training-Guide-1.pdf
- Outline of FCDS Abstracting Basics Course – Appendix P
- NCRA offers basic courses, webinars, and CTR Exam Prep – http://www.ncra-usa.org
- NCRA also hosts ways to become a cancer registrar and becoming a CTR – http://www.cancerregistryeducation.org/become-a-cancer-registrar/
- 2022 SEER Tools – SEER*Rx, SEER*Heme Rules and Database, SEER*RSA, SEER Solid Tumor Rules, Casefinding Lists and much more available on the SEER Website @ http://seer.cancer.gov.

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2022 FCDS DAM – Resources for Registrars and More

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Recommended Training Resources for New Registrars

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We hope this listing of available training resources will be of help in getting new registrars started. This is a complicated field and requires knowledge of many resources and manuals.

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The NAACCR Cancer Registrar Training Guide, v4 was published in 2020 and is available at https://www.naaccr.org/wp-content/uploads/2020/05/Registry-Training-Guide-1.pdf

Recommended Resources for New Abstractor Training:

- NCRA Accredited Cancer Certificate and/or Degree Programs - https://www.ncrausa.
- org/About/Become-a-Cancer-Registrar
- NEED ACCESS TO ALL 2021 Manuals, Tools and Guidelines/Instructions – see Appendix P
- SEER Site-Specific Modules and Self-Instructional Training - https://seer.cancer.gov/training/
- NAACCR Cancer Registrar Training Guide - https://www.naaccr.org/wpcontent/
- uploads/2020/05/Registry-Training-Guide-1.pdf
- Outline of 2021 FCDS Abstracting Basics Course – attached PDF
- NCRA offers basic courses, webinars, and CTR Exam Prep – http://www.ncra-usa.org
- NCRA also hosts ways to become a cancer registrar and becoming a CTR –
- http://www.cancerregistryeducation.org/become-a-cancer-registrar/
- 2021 SEER Tools – SEER*Rx, SEER*Heme Rules and Database, SEER*RSA, SEER Solid Tumor Rules,
- Casefinding Lists and much more available on the SEER Website @ http://seer.cancer.gov.
- SEER*Educate - https://educate.fredhutch.org/LandingPage.aspx
- 2021 FCDS Data Acquisition Manual - https://fcds.med.miami.edu/inc/downloads.shtml
- 2021 FCDS Webcast Series - https://fcds.med.miami.edu/inc/educationtraining.shtml
- FCDS Learning Management System – FLccSC - https://fcds.med.miami.edu/inc/flccsc.shtml
- 2021 NAACCR Webinar Series - https://fcds.med.miami.edu/scripts/naaccr_webinar.pl
- 2021 NAACCR CTR Exam Prep and Review Webinar Series - https://education.naaccr.org/ctr
- American Cancer Society has cancer-specific educational materials in their Cancer A-Z Series -
- https://www.cancer.org/cancer.html
- National Cancer Institute has a TON of information – start here with the About Cancer Series – then
- go to specific cancer types to reinforce topics and concepts - https://www.cancer.gov/about-cancer
- AJCC has basic AJCC TNM Training – we won't teach this, anyway – https://cancerstaging.org/
- Registry Software Vendors also provide training on their products and sometimes on cancer registration
- Finding a Mentor thru NCRA or FCRA may be another avenue

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NAACCR Webinar Recordings

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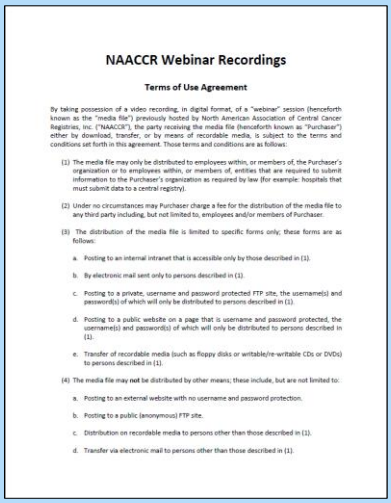
- Available 24/7 on FLccSC Website
- No Registration is Required
- Terms of Use Agreement
- Florida Registrars Only
- Password Protected
- Do Not Distribute
- All Materials
- CEUs



NAACCR Webinar Recordings

Terms of Use Agreement

By taking possession of a video recording, in digital format, of a "webinar" session (henceforth known as the "media file") previously hosted by North American Association of Central Cancer Registries, Inc. ("NAACCR"), the party receiving the media file (henceforth known as "Purchaser") either by download, transfer, or by means of recordable media, is subject to the terms and conditions set forth in this agreement. Those terms and conditions are as follows:

(1) The media file may only be distributed to employees within, or members of, the Purchaser's organization or to employees within, or members of, entities that are required to submit information to the Purchaser's organization as required by law (for example: hospitals that must submit data to a central registry).

(2) Under no circumstances may Purchaser charge a fee for the distribution of the media file to any third party including, but not limited to, employees and/or members of Purchaser.

(3) The distribution of the media file is limited to specific forms only; these forms are as follows:

a. Posting to an internal intranet that is accessible only by those described in (1).

b. By electronic mail sent only to persons described in (1).

c. Posting to a private, username and password protected FTP site, the username(s) and password(s) of which will only be distributed to persons described in (1).

d. Posting to a public website on a page that is username and password protected, the username(s) and password(s) of which will only be distributed to persons described in (1).

e. Transfer of recordable media (such as floppy disks or writable/re-writable CDs or DVDs) to persons described in (1).

(4) The media file may **not** be distributed by other means; these include, but are not limited to:

a. Posting to an external website with no username and password protection.

b. Posting to a public (anonymous) FTP site.

c. Distribution on recordable media to persons other than those described in (1).

d. Transfer via electronic mail to persons other than those described in (1).

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2022-2023 NAACCR Webinar Schedule

Date	Time	Topic – All Webcasts with Host Jim Hofferkamp	Guest Speaker
10/6/2022	9:00am - 12:00pm	Breast 2022 Part 1	Wilson Apollo
11/3/2022	9:00am - 12:00pm	Breast 2022 Part 2	Denise Harrison
12/1/2022	9:00am - 12:00pm	Esophagus 2022	Wilson Apollo
1/12/2023	9:00am - 12:00pm	Head and Neck 2023	Vicki Hawhee
2/2/2023	9:00am - 12:00pm	Data Item Relationships	Jennifer Ruhl/Angela Constantini
3/2/2023	9:00am - 12:00pm	Boot Camp 2023	Nancy Etzold/Elaine Bomberger-Schmotzer
4/6/2023	9:00am - 12:00pm	Prostate 2023	Gillain Howell/Amy Bramburg
5/4/2023	9:00am - 12:00pm	Lower GI 2023 Part 1	Denise Harrison
6/1/2023	9:00am - 12:00pm	Lower GI 2023 Part 2	Denise Harrison
7/13/2023	9:00am - 12:00pm	IT Worked for Me: "FUN"matics in the Cancer Registry	Ronda Broome/Lisa Landvogt/Kelli Merriman
8/2/2023	9:00am - 12:00pm	Melanoma 2023	Janine Smith
9/7/2023	9:00am – 12:00pm	Coding Pitfalls 2023	Janet Vogel

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NAACCR CTR Exam Prep & Review Webinar Series

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- 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 $195 – includes "live" sessions
- FCDS picks up the $195 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

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NCRA – Knowledge-Based Badge Program – New Program

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- NCRA's Knowledge-Based Badge Program offers professional recognition of critical cancer registry topics. Participants receive a completion certificate (electronic and printable PDF) and a digital badge after coursework completion and receipt of passing scores on the assessments.
- The Central Registry Knowledge-Based Badge is the first offering and includes six CEs at $99 for NCRA members. That is $16.50 per CE! This inaugural badge is designed to help hospital registrars understand the operations and responsibilities of a central registry. It is perfect for those thinking about a career transition to a central registry or those looking to broaden their knowledge base

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SEER*Training and SEER*Educate

https://seer.cancer.gov/training/

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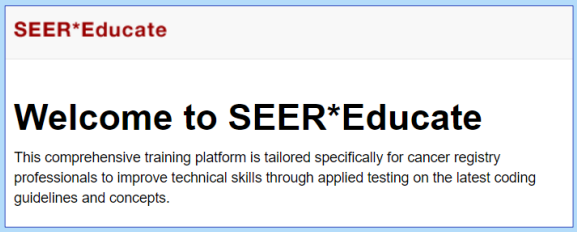

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FCDS
Florida Cancer Data System
Florida HEALTH
CDC Centers for Disease Control and Prevention
NPCR NATIONAL PROGRAM OF CANCER REGISTRIES
JEAN BYERS AWARD FOR EXCELLENCE IN CANCER REGISTRATION
Megsys Herna, BA, CTR
FCDS Virtual Annual Conference
August 18, 2022

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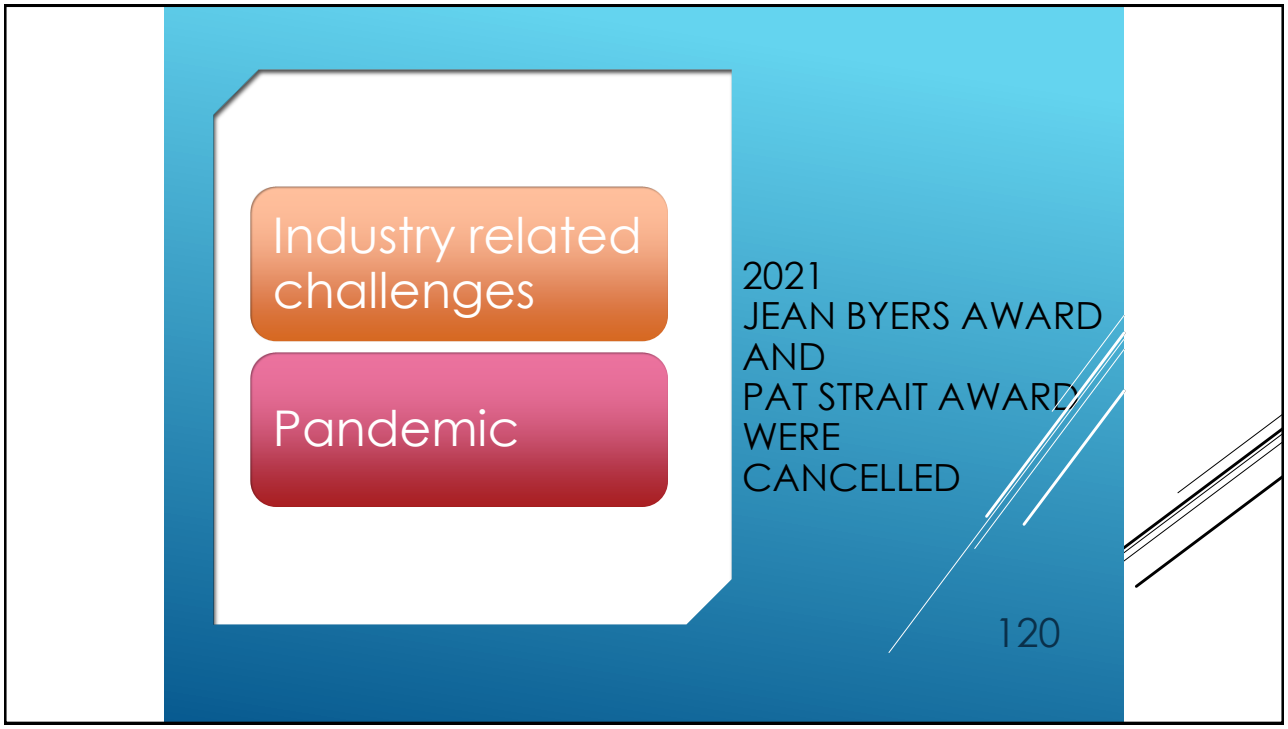
Industry related challenges
Pandemic
2021
JEAN BYERS AWARD
AND
PAT STRAIT AWARD
WERE
CANCELLED
120

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CONGRATULATIONS TO THE 61 FACILITIES TO RECEIVE HONORABLE MENTION!

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1100-SHANDS UNIVERSITY OF FLORIDA
1306-BAY MEDICAL CENTER
1609-IMPERIAL POINT MEDICAL CENTER
1636-HOLY CROSS HOSPITAL
1645-BROWARD HEALTH CORAL SPRINGS
1686-FLORIDA MEDICAL CENTER
1800-FAWCETT MEMORIAL HOSPITAL
2205-SHANDS LAKE SHORE REGIONAL MED CTR
2307-WEST KENDALL BAPTIST HOSPITAL
2348-DOCTORS HOSPITAL
2349-HIALEAH HOSPITAL
2353-NORTH SHORE MEDICAL CENTER
2359-NICKLAUS CHILDREN'S HOSPITAL
2372-U OF MIAMI HOSPITAL CLINICS
2376-SOUTH MIAMI HOSPITAL
2377-WESTCHESTER GENERAL HOSPITAL
2383-PALMETTO GENERAL HOSPITAL
2605-BAPTIST MEDICAL CENTER BEACHES
2606-SHANDS JACKSONVILLE MEDICAL CENTER
2636-BAPTIST MEDICAL CTR JACKSONVILLE
2640-BAPTIST MEDICAL CENTER SOUTH
2647-NEMOURS CHILDREN'S HOSPITAL
2648-MEMORIAL HOSPITAL JACKSONVILLE
2672-WOLFSON CHILDREN'S HOSP NCC
2738-ASCENSION SACRED HEART
3300-ASCENSION SACRED HEART ON THE GULF
3906-TAMPA GENERAL HOSPITAL
3907-ADVENTHEALTH TAMPA
3932-H LEE MOFFITT CANCER CENTER
3938-SOUTH FLORIDA BAPTIST HOSPITAL
3978-HCA FLORIDA WEST TAMPA HOSPITAL
4105-CLEVELAND CLINIC INDIAN RIVER HOSP
4516-LEESBURG REGIONAL MEDICAL CENTER
4547-ADVENTHEALTH WATERMAN
4601-CAPE CORAL HOSPITAL
4605-LEE MEMORIAL HEALTH SYSTEM
4645-REG CANCER CTR GULF COAST HOSPITAL
4647-LEHIGH REGIONAL MEDICAL CENTER
4690-LEE MEMORIAL HOSPITAL HEALTHPARK
5100-BLAKE MEDICAL CENTER
5446-FISHERMENS HOSPITAL
5471-MARINERS HOSPITAL
5505-BAPTIST MEDICAL CENTER NASSAU
5610-ASCENSION SACRED HEART EMERALD COAST
6003-DELRAY MEDICAL CENTER
6007-LAKESIDE MEDICAL CENTER
6036-ST MARY'S MEDICAL CENTER
6206-HCA FLORIDA LARGO HOSPITAL
6246-JOHN HOPKINS ALL CHILDREN'S HOSPITAL
6251-ST ANTHONY HOSPITAL
6305-LAKELAND REGIONAL MEDICAL CENTER
6346-BARTOW REGIONAL MEDICAL CENTER
6347-ADVENTHEALTH HEART OF FLORIDA
6348-ADVENTHEALTH LAKE WALES HOSPITAL
6349-WINTER HAVEN HOSPITAL
6570-FLAGLER HOSPITAL
6707-SANTA ROSA MEDICAL CENTER
6846-SHOREPOINT HEALTH VENICE
6905-CENTRAL FLORIDA REGIONAL HOSPITAL
7005-VILLAGES REGIONAL HOSPITAL
7105-LAKE CITY MED CTR SUWANNEE

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FCDS Florida Statewide Cancer Registry
Florida Cancer Data System

Welcome to Session III of the FCDS Annual Meeting

Session	Date/Time	Estimated Time	2022 FCDS Virtual Annual Conference - Topic	Speaker
FCDS Session 3	8/25/2022 1pm-3pm	1:00pm-2:00pm	NCCR & STAR Projects – Pediatric, Adolescent and Young Adult Cancers	NCCR – Johanna Goderre Jones – NCI STAR – Loria A Pollack, MD, MPH - CDC
		2:00pm-3:00pm	What's New in Cancer Care –Diagnosis, Workup, Tumor Markers, TX	Steven Peace, CTR - FCDS

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Childhood Cancer Data Initiative Surveillance Research Program (SRP) National Childhood Cancer Registry

Florida Cancer Data System (FCDS) Annual Conference

August 25, 2022

NIH NATIONAL CANCER INSTITUTE

Johanna Goderre, MPH, CSPO
NCCR Technical Lead
Health Data Scientist, Surveillance Research Program

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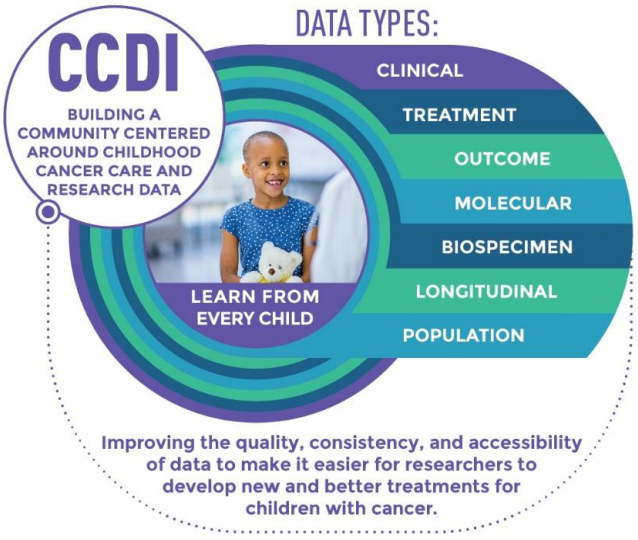

The goal of the CCDI is to build a community of

pediatric cancer researchers, advocates, families, hospitals, and networks

committed to sharing data to improve treatments, quality of life, and survivorship of every child with cancer

$50 million annual federal investment made in each fiscal year 2020 to 2030

NIH NATIONAL CANCER INSTITUTE https://www.cancer.gov/research/areas/childhood/childhood-cancer-data-initiative 125

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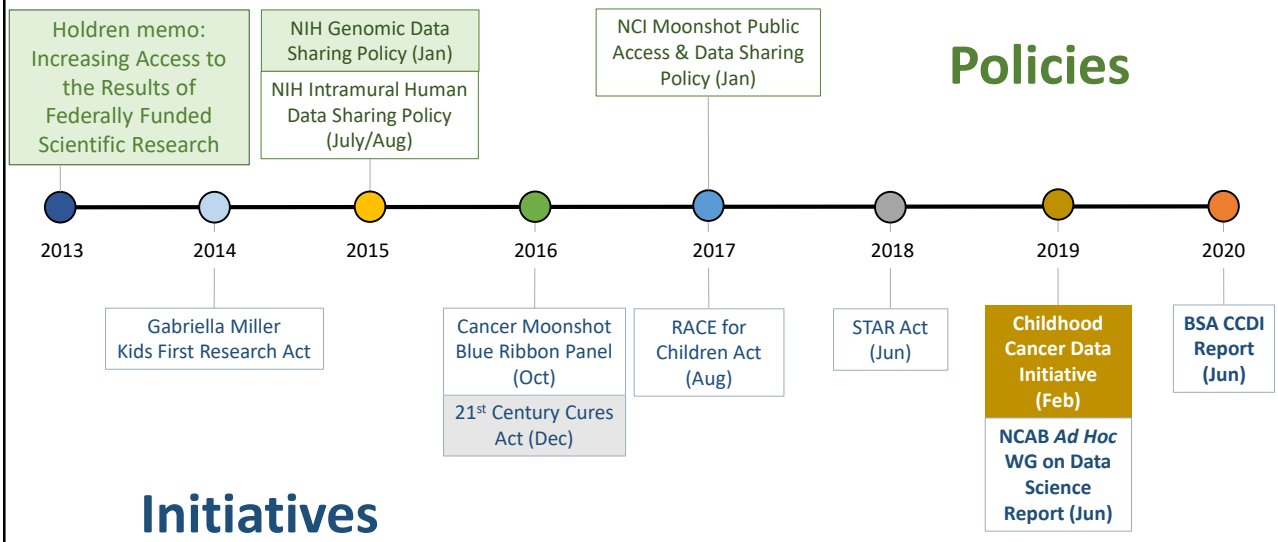
History of Initiatives and Policy Leading up to CCDI



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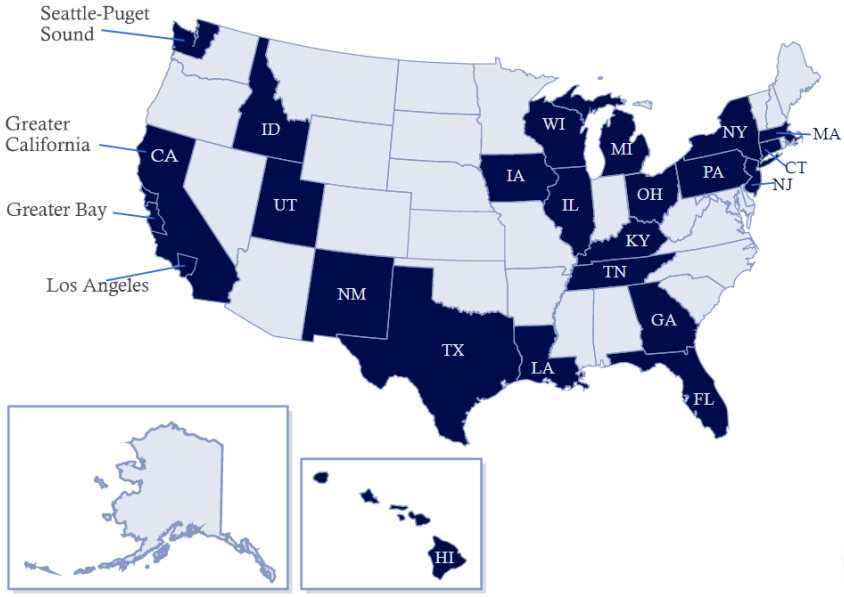
Central Cancer Registries participating in the NCCR



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National Childhood Cancer Registry

Approximately 16,000 childhood cancer patients are diagnosed in the United States annually, compared with the 1.8 million new cancer cases among all ages.

Initial Registry Participation = ~70% of US population

All childhood cases from registries (0-19 at diagnosis and expanding to <40; 1995+)

Consolidate and standardize data in a single infrastructure

Analyze and share data, in a controlled access environment, to gain insight

Data Domains:

- Longitudinal Treatment, Procedures, Outcomes
  (including pharmacy data, radiation oncology, claims, radiology, vital status)
- Social Determinants of Health
  (including financial toxicity, residential history)
- Clinical Trials, Survivorship Studies, Biospecimen or Tissue Location
- Tumor and Germline Molecular Characterization

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CCDI National Childhood Cancer Registry

- Leverage and link disparate data from multiple sources to create an infrastructure that can better support surveillance and research on childhood cancer
- 24 central cancer registries, including 5 NPCR (MI, PA, TN, OH, FL)
- Core data derived from cancer registries- but extended and expanded to include additional relevant information such as
  - Detailed treatment
  - Genomic characterization
  - Trajectory of care from diagnosis throughout life including
    - Multiple primary cancers
    - Recurrent disease
  - Other relevant factors related to risk and outcome (residential history, SDOH etc.)
- Integrate within modern CCDI federated data ecosystem
- Include data on a broader set of patients than covered in COG facilities
  - Potential disparities in who is seen/treated in COG systems
  - Preliminary data estimating proportion of patients seen at COG facilities in SEER: 65-77% overall

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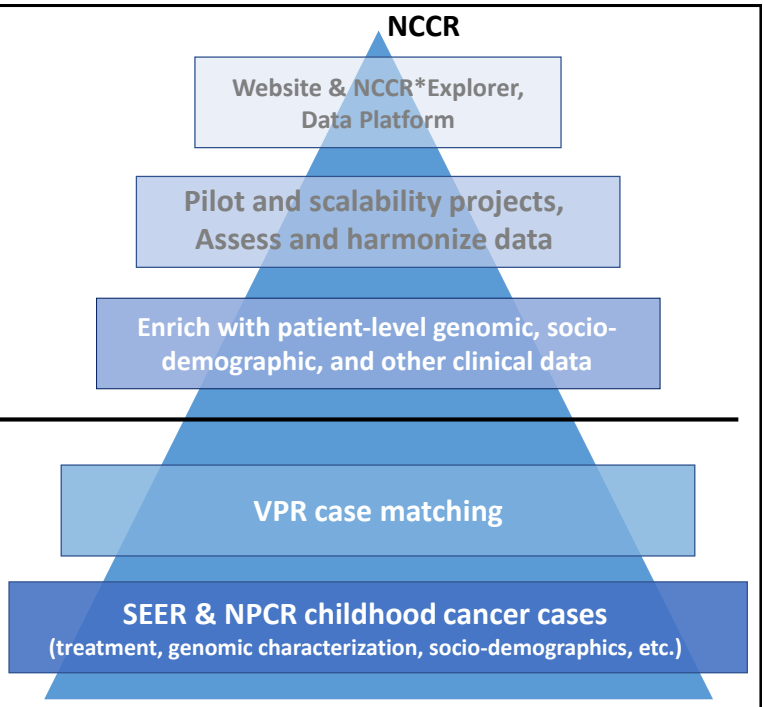
- Communicate progress!

- Pilots like Birth Records, Whole Slide Imaging, Medicaid
- Other efforts to improve data quality and resources with CDC, HemOnc.org, DOE
- Linkages from detailed, non-registry sources like Cancer Centers, COG, Pediatric Proton/Photon Registry



Census of all childhood cancer cases

- NAACCR Virtual Pooled Registry
  - De-duplication & longitudinal matching
  - 9 states in 2022
  - Enable survivorship studies
- High-quality PII/PHI-based matching of individuals across many data sources
- Rich data from SEER registry abstracts (since 1995; expanding to <40 year-olds)

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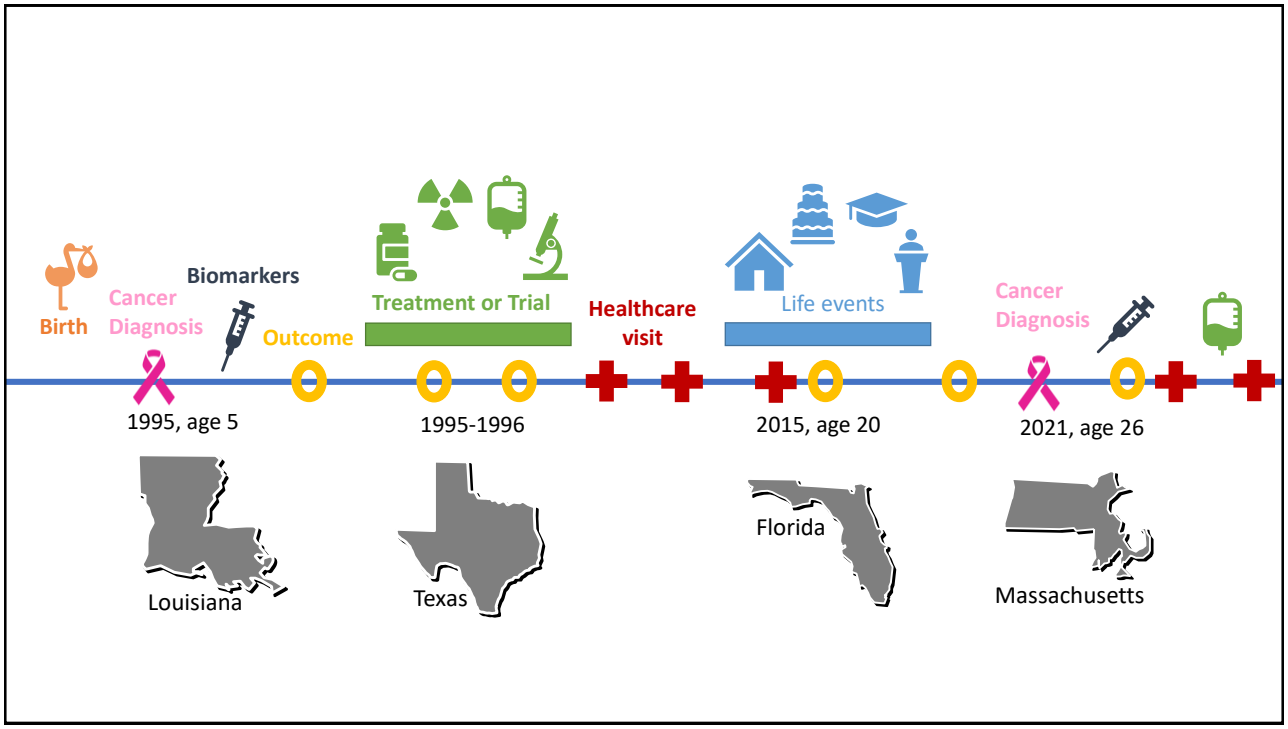

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Better understand disparities in care

Children with cancer have complicated patterns of care in the US:

- Children's Oncology Group (COG) runs the majority of clinical trials for pediatric cancer
- COG facilities provide state-of-the-art care, however:
  - 60% of patients age <29 enroll in trials
  - Prior studies report trial enrollment varies by age and cancer site
- **What patients are not seen at COG facilities?**

Solutions:

- Evaluate registry data for evidence of care received in COG facilities
- Link with COG data and understand disparities in access to care

https://www.childrensoncologygroup.org/clinicaltrials-136
Liu, 2003 PMID: 12599243; Faulk, 2020 PMID: 32324751

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Important Categories of Data for CCDI from NCCR Cancer Centers

Clinical, treatment, and outcome data from clinical trials and the EHR

Molecular data including research sequencing and clinical molecular profiling

Availability and location of biospecimens, including germline and tumor DNA

Longitudinal population data from patients and survivors

https://deainfo.nci.nih.gov/advisory/bsa/sub-cmte/CCDI/CCDI%20BSA%20WG%20Report_Final%20061620.pdf

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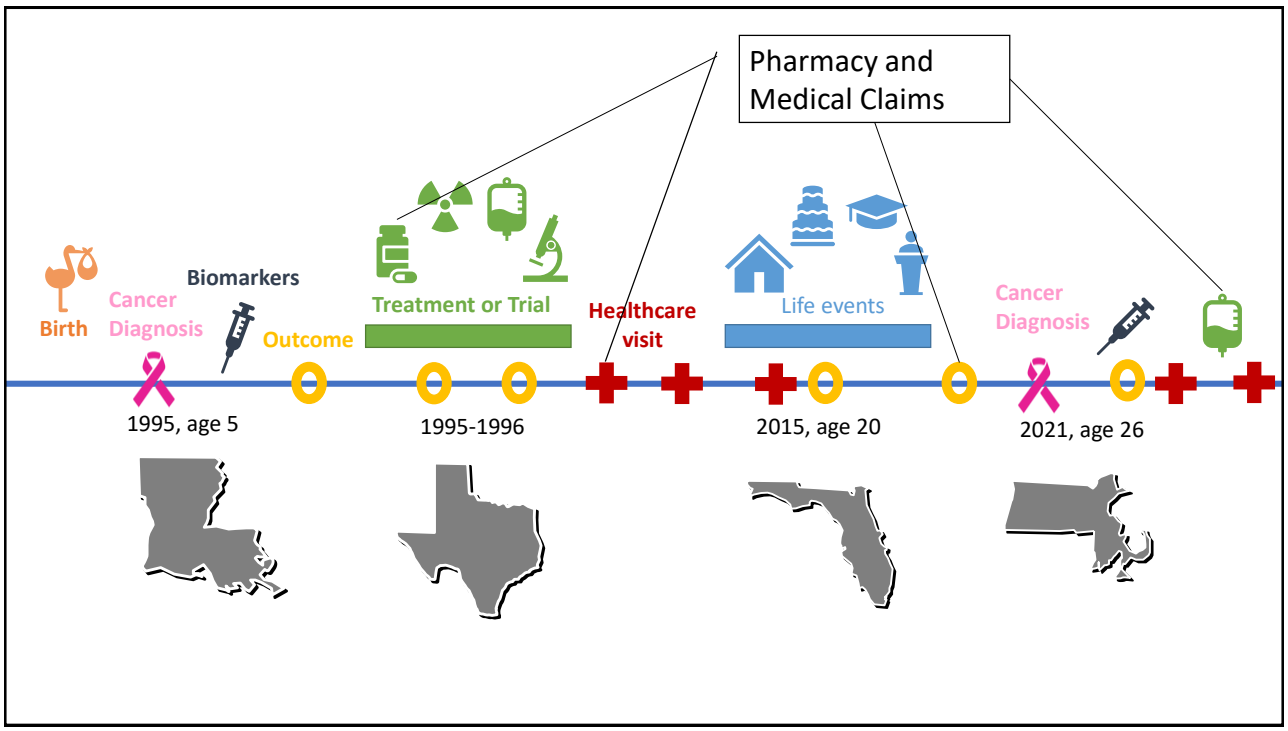

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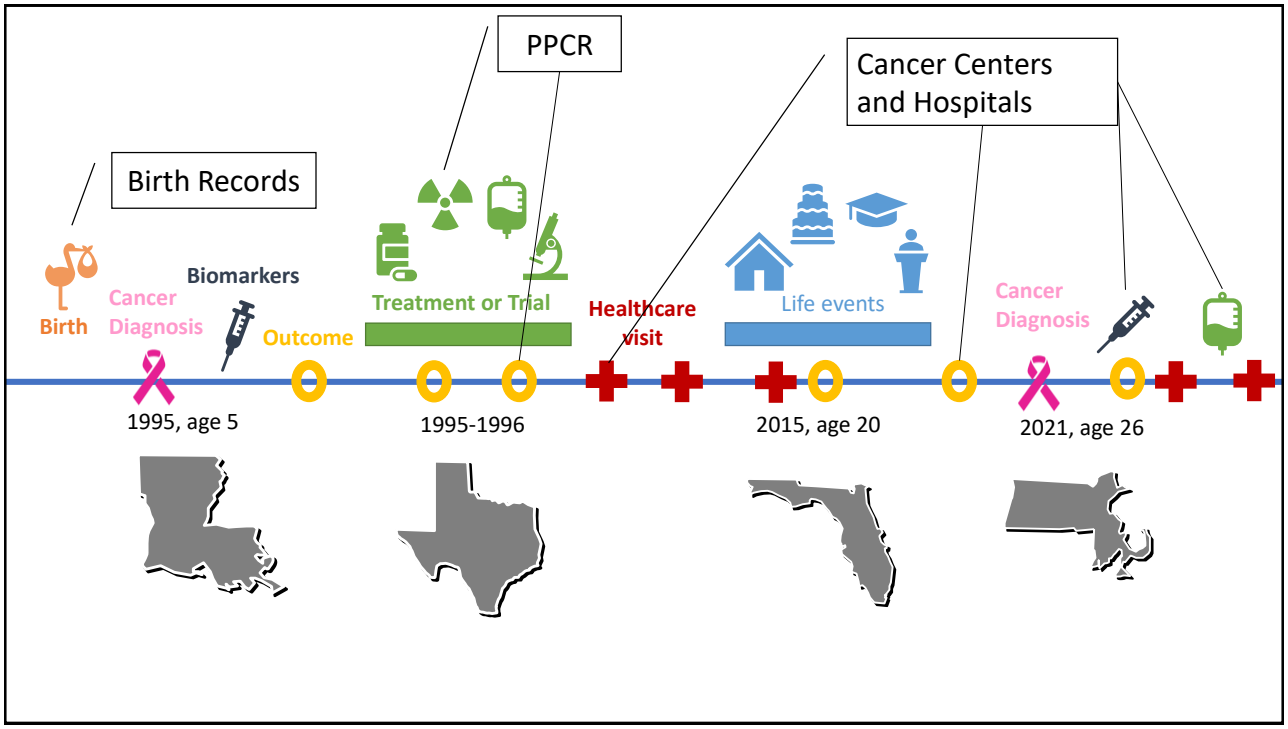
PPCR
Cancer Centers and Hospitals
Birth Records
Birth
Cancer Diagnosis
Biomarkers
Outcome
Treatment or Trial
Healthcare visit
Life events
Cancer Diagnosis
1995, age 5
1995-1996
2015, age 20
2021, age 26

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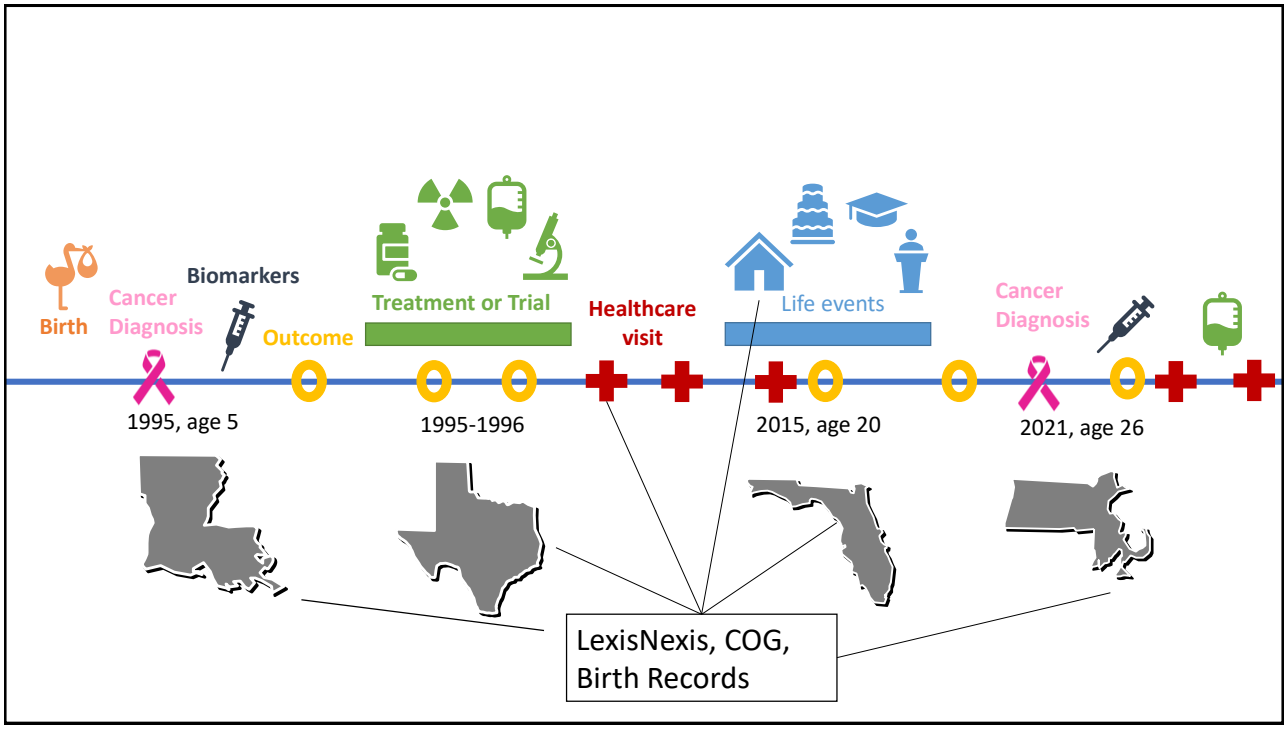
Birth
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Healthcare visit
Life events
Cancer Diagnosis
1995, age 5
1995-1996
2015, age 20
2021, age 26
LexisNexis, COG, Birth Records

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Paediatric cancer stage in population-based cancer registries: the Toronto consensus principles and guidelines

Sumit Gupta, Joanne F Aitken, Ute Bartels, James Brierley, Mae Dolendo, Paola Friedrich, Soad Fuentes-Alabi, Claudia P Garrido, Gemma Gatta, Mary Gospodarowicz, Thomas Gross, Scott C Howard, Elizabeth Molyneux, Florencia Moreno, Jason D Pole, Kathy Pritchard-Jones, Oscar Ramirez, Lynn A G Ries, Carlos Rodriguez-Galindo, Hee Young Shin, Eva Steliarova-Foucher, Lillian Sung, Eddy Supriyadi, Rajaraman Swaminathan, Julie Torode, Tushar Vora, Tezer Kutluk, A Lindsay Frazier

Population-based cancer registries generate estimates of incidence and survival that are essential for cancer surveillance, research, and control strategies. Although data on cancer stage allow meaningful assessments of changes in cancer incidence and outcomes, stage is not recorded by most population-based cancer registries. The main method of staging adult cancers is the TNM classification. The criteria for staging paediatric cancers, however, vary by diagnosis, have evolved over time, and sometimes vary by cooperative trial group. Consistency in the collection of staging data has therefore been challenging for population-based cancer registries. We assembled key experts and stakeholders (oncologists, cancer registrars, epidemiologists) and used a modified Delphi approach to establish principles for paediatric cancer stage collection. In this Review, we make recommendations on which staging systems should be adopted by population-based cancer registries for the major childhood cancers, including adaptations for low-income countries. Wide adoption of these guidelines in registries will ease international comparative incidence and outcome studies.

Lancet Oncol 2016; 17: e163–72

Division of Haematology/Oncology, Hospital for Sick Children, Toronto, ON, Canada (S Gupta PhD, U Bartels MD, L Sung PhD); **Department of Paediatrics, Faculty of Medicine, University of Toronto, Toronto, ON, Canada** (S Gupta, U Bartels, L Sung); **Cancer Council Queensland, Fortitude Valley, Brisbane, QLD, Australia** (J F Aitken PhD); **Department of Radiation Oncology, Princess Margaret Hospital, Toronto, ON, Canada**

Introduction

cancer stage by population-based cancer registries, and

PMID: 27300676
DOI: 10.1016/S1470-2045(15)00539-2

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THE LANCET
Child & Adolescent Health

COMMENT | VOLUME 2, ISSUE 3, P158-159, MARCH 01, 2018

The Toronto Guidelines: a practical means for childhood cancer staging

Nickhill Bhakta • Carlos Rodriguez-Galindo

Published: January 23, 2018 • DOI: https://doi.org/10.1016/S2352-4642(18)30024-5 • Check for updates

A meaningful comparison of paediatric cancer outcomes over time or by geographical location requires a standardised and systematic collection of data on incident cases, survival

PMID: 30169247
DOI: 10.1016/S2352-4642(18)30024-5

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Cancer Prevention Works

Childhood Cancer STAR ACT

CDC STAR Project
Survivorship, Treatment, Access, and Research

Loria Pollack, MD, MPH
Centers for Disease Control and Prevention
Division of Cancer Prevention and Control, Cancer Surveillance Branch

Florida Cancer Data Systems 2022 Annual Training
August 25, 2022

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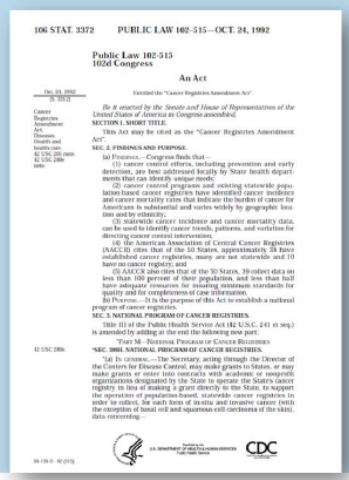
The Childhood Cancer Survivorship, Treatment, Access, and Research Act (STAR)



106 STAT. 3372 PUBLIC LAW 102-515—OCT. 24, 1992

Public Law 102-515
102d Congress

An Act

Oct. 24, 1992
[S. 3311]

Cancer Registries Amendment Act. Diseases. Health and Human Services.
42 USC 201 note.
42 USC 280e note.

Entitled the "Cancer Registries Amendment Act".

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Cancer Registries Amendment Act".

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS.—Congress finds that—

(1) cancer control efforts, including prevention and early detection, are best addressed locally by State health departments that can identify unique needs;

(2) cancer control programs and existing statewide population-based cancer registries have identified cancer incidence and cancer mortality rates that indicate the burden of cancer for Americans is substantial and varies widely by geographic locations and by ethnicity;

(3) statewide cancer incidence and cancer mortality data, can be used to identify cancer trends, patterns, and variation for directing cancer control interventions;

(4) the American Association of Central Cancer Registries (AACCR) cites that of the 50 States, approximately 38 have established cancer registries, many are not statewide and 10 have no cancer registry; and

(5) AACCR also cites that of the 50 States, 39 collect data on less than 100 percent of their population, and less than half have adequate resources for insuring minimum standards for quality and for completeness of case information.

(b) PURPOSE.—It is the purpose of this Act to establish a national program of cancer registries.

SEC. 3. NATIONAL PROGRAM OF CANCER REGISTRIES.

Title III of the Public Health Service Act (42 U.S.C. 241 et seq.) is amended by adding at the end the following new part:

"PART M—NATIONAL PROGRAM OF CANCER REGISTRIES

42 USC 280e.

"SEC. 399H. NATIONAL PROGRAM OF CANCER REGISTRIES.

"(a) IN GENERAL.—The Secretary, acting through the Director of the Centers for Disease Control, may make grants to States, or may make grants or enter into contracts with academic or nonprofit organizations designated by the State to operate the State's cancer registry in lieu of making a grant directly to the State, to support the operation of population-based, statewide cancer registries in order to collect, for each form of in-situ and invasive cancer (with the exception of basal cell and squamous cell carcinoma of the skin), data concerning—

CDC

- ★ Milestone, bipartisan legislation enacted in 2018
- ★ Designed to advance understanding and care of cancer diagnosed in children, adolescents, and young adults
- ★ CDC was charged to "enhance and expand infrastructure to track the epidemiology of cancer in children, adolescents, and young adults"

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STAR Project Goals

- Expand **rapid case reporting** from facilities where childhood cancer is diagnosed into cancer registries
- Develop and implement an **infrastructure** to support early inclusion of childhood cancer to registries
- Provide **timely data** to improve understanding and lives of children, adolescent, and young adults diagnosed with cancer

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CDC STAR Project

Rapid Case Reporting

Timely Data on Childhood Cancer

Laboratories Reporting Sources

State-based Central Cancer Registries

NPCR-NOAH
National Program of Cancer Registries
National Oncology rapid Ascertainment Hub

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STAR Rapid Case Reporting

Who	• All reporting facilities that diagnose or treat patients aged 0-29

What	• Partial abstracts / Suspense List
	  • Patients aged 0-29
	  • Minimum data set
	  • Diagnosed on or after Jan 1, 2020

When	• Routine submissions • Earlier than 6 months
Where	• Submission to Central Cancer Registry (CCR)
How	• Processes to be defined with CCR

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National Oncology rapid Ascertainment Hub

NPCR-NOAH

- An infrastructure to support early inclusion of childhood cancer in registries
- Cloud-based informatics system to improve case finding, reportability, and timeliness of cancer in
  - Children
  - Adolescents
  - Young Adults
- Centralized electronic rapid case reporting from laboratories into state-based registries

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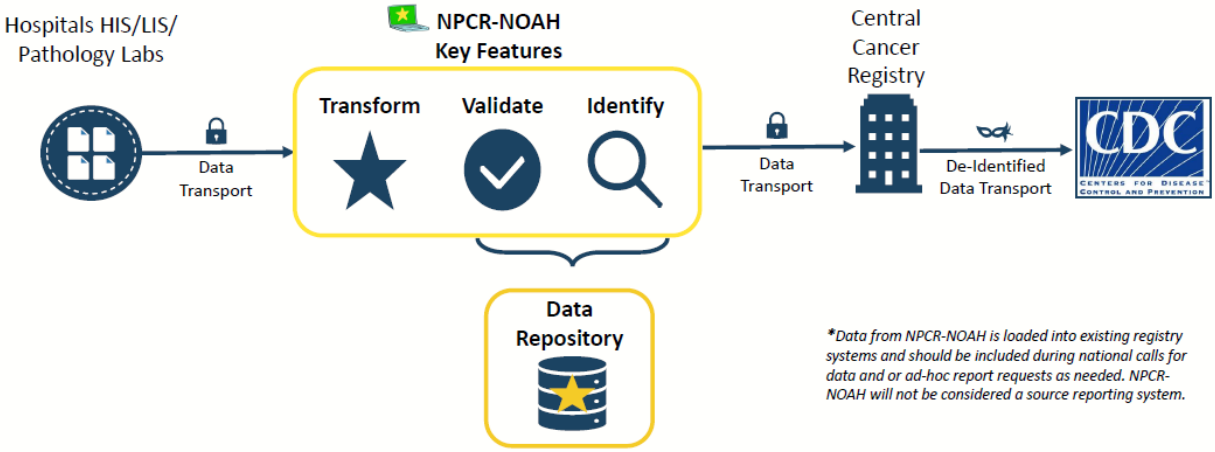
NPCR-NOAH Solution Architecture Framework



*Data from NPCR-NOAH is loaded into existing registry systems and should be included during national calls for data and or ad-hoc report requests as needed. NPCR-NOAH will not be considered a source reporting system.

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FCDS Florida Cancer Data System

What's New in Cancer Care? Classification, Diagnosis, Imaging & Treatment

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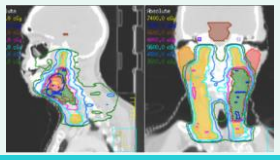
FCDS VIRTUAL ANNUAL CONFERENCE

8/25/2022

STEVEN PEACE, CTR



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Presentation Outline

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- Introduction
- 2022 ACS Cancer Facts & Figures - Statistics
- 2021 Annual Report to the Nation on the Status of Cancer
- Cancer Trends Progress Report – 20th Anniversary
- AACR Cancer Progress Report 2021
- NCCN Annual Report 2021
- ASCO Report on Progress Against Cancer 2021
- FDA New Drug Therapy Approvals in 2021
- New Developments in Cancer Incidence – esophagus, endometrium, pancreas
- New Developments in Cancer Screening – pancreas, lung, melanoma, MCED Tests
- New Developments in Tumor Classification & Molecular-Biomarker Testing
- New Developments in Diagnostic Tools & Cancer Treatments – imaging, XRT, Immuno
- Update on Effects of the COVID-19 Pandemic on Cancer Diagnosis, Stage, and Treatment
- 2022 Update on Cancer Moonshot
- Questions

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2022 Incidence & Mortality Estimates

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Figure 3. Leading Sites of New Cancer Cases and Deaths – 2022 Estimates

Estimated New Cases

Male			Female		
Prostate	268,490	27%	Breast	287,850	31%
Lung & bronchus	117,910	12%	Lung & bronchus	118,830	13%
Colon & rectum	80,690	8%	Colon & rectum	70,340	8%
Urinary bladder	61,700	6%	Uterine corpus	65,950	7%
Melanoma of the skin	57,180	6%	Melanoma of the skin	42,600	5%
Kidney & renal pelvis	50,290	5%	Non-Hodgkin lymphoma	36,350	4%
Non-Hodgkin lymphoma	44,120	4%	Thyroid	31,940	3%
Oral cavity & pharynx	38,700	4%	Pancreas	29,240	3%
Leukemia	35,810	4%	Kidney & renal pelvis	28,710	3%
Pancreas	32,970	3%	Leukemia	24,840	3%
All sites	**983,160**		**All sites**	**934,870**	

Estimated Deaths

Male			Female		
Lung & bronchus	68,820	21%	Lung & bronchus	61,360	21%
Prostate	34,500	11%	Breast	43,250	15%
Colon & rectum	28,400	9%	Colon & rectum	24,180	8%
Pancreas	25,970	8%	Pancreas	23,860	8%
Liver & intrahepatic bile duct	20,420	6%	Ovary	12,810	4%
Leukemia	14,020	4%	Uterine corpus	12,550	4%
Esophagus	13,250	4%	Liver & intrahepatic bile duct	10,100	4%
Urinary bladder	12,120	4%	Leukemia	9,980	3%
Non-Hodgkin lymphoma	11,700	4%	Non-Hodgkin lymphoma	8,550	3%
Brain & other nervous system	10,710	3%	Brain & other nervous system	7,570	3%
All sites	**322,090**		**All sites**	**287,270**	

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Estimates do not include Puerto Rico or other US territories. Ranking is based on modeled projections and may differ from the most recent observed data.

2022 Cancer Facts and Figures – American Cancer Society

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American Indian and Alaska Native Populations

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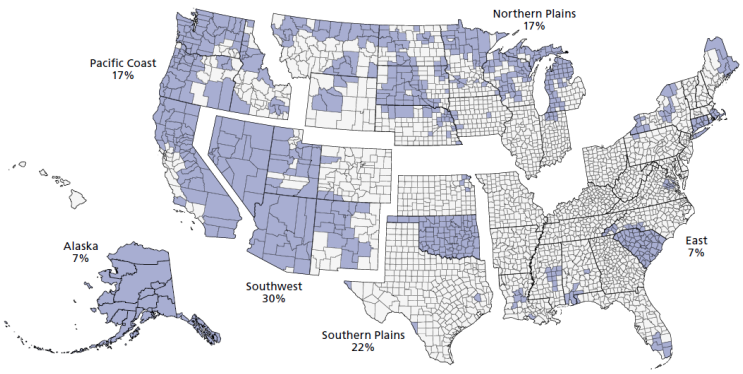
Figure S1. PRCDA Counties and the Distribution of American Indian and Alaska Native Persons by Region



PCRDA: Purchased/Referred Care Delivery Area. Percentages represent the proportion of the non-Hispanic American Indian/Alaska Native PRCDA population that lives in each region (shown in blue).

Source: US Census Bureau, 2019.

2022 Cancer Facts and Figures – American Cancer Society

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American Indian and Alaska Native Populations

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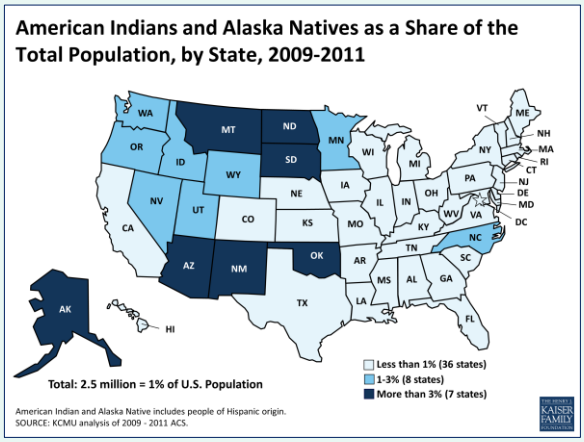

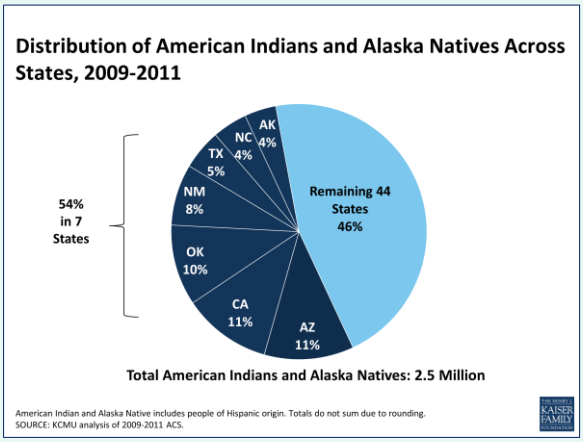

Kaiser Family Foundation

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2021 Annual Report to the Nation on the Status of Cancer

152

American Cancer Society

ANNUAL REPORT to THE NATION on THE STATUS of CANCER
www.cdc.gov/cancer/annual-report

NIH NATIONAL CANCER INSTITUTE

CDC CENTERS FOR DISEASE CONTROL AND PREVENTION

OXFORD

JNCI J Natl Cancer Inst (2021) 113(12): djab131

doi: 10.1093/jnci/djab131
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Article

Annual Report to the Nation on the Status of Cancer, Part 1: National Cancer Statistics

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NAACCR North American Association of Central Cancer Registries

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2021 Annual Report to the Nation on the Status of Cancer

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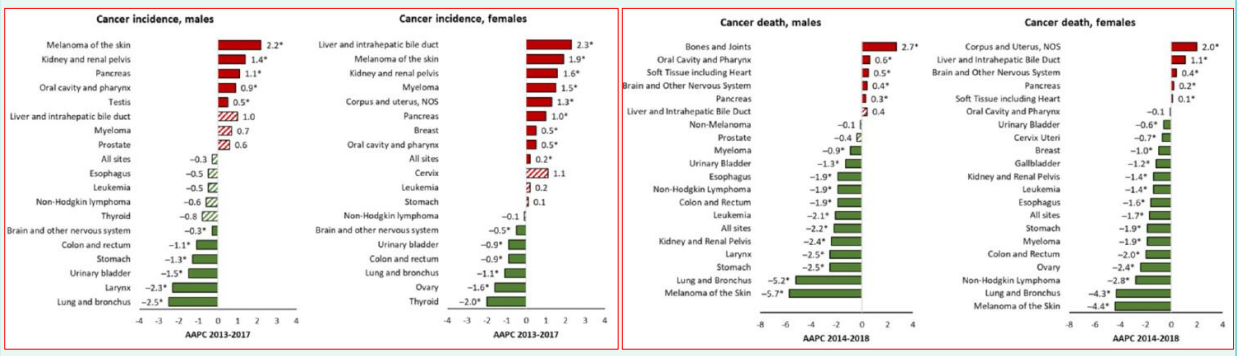
Average annual percent change (AAPC) in age-standardized, delay-adjusted incidence rates for 2013-2017

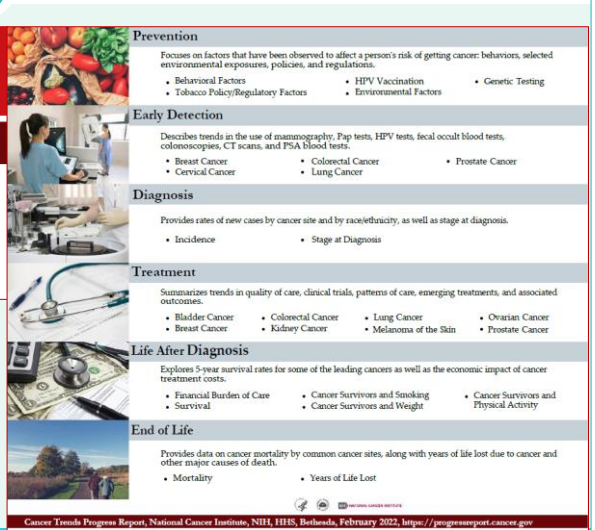


153

Cancer Trends Progress Report – 20th Anniversary

154

The Cancer Trends Progress Report, continually updated since its first issue in 2001, summarizes our nation's advances against cancer in relation to Healthy People targets set forth by the Department of Health and Human Services. The report, intended for policy makers, researchers, and public health professionals, includes key measures of progress along the cancer control continuum and uses national trend data to illustrate where improvements have been made and where attention is demanded. New measures this year include Sleep, Melanoma of the Skin Treatment, Outdoor Tanning, and Evidence-based Smoking Cessation Aids.

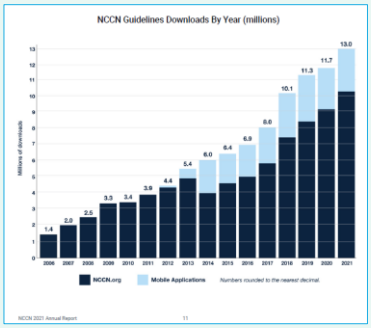


154

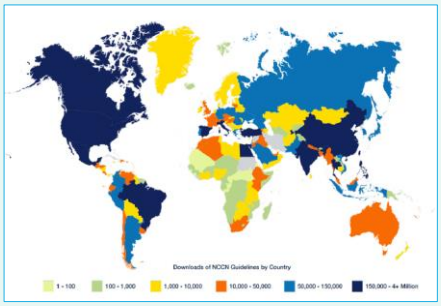
NCCN Annual Report 2021

155

NCCN Guidelines Downloads By Year (millions)



Downloads of NCCN Guidelines by Country in 2021



155

New Developments in Cancer Incidence – Endometrial CA

156

- **Uterine cancer incidence has been increasing and is projected to surpass colorectal cancer as the third leading cancer and fourth leading cause of cancer death among women by 2040.**
- Endometrioid carcinoma is the predominant histologic subtype, accounting for approximately 75% of all cases that are usually diagnosed at an early stage with good prognosis. These tumors are associated with obesity as well as hormonal and reproductive factors related to cumulative lifetime estrogen exposure.
- Non-endometrioid carcinomas account for approximately 15%to 20% of cases, have been described as estrogen independent and are typically diagnosed at later stages with poorer prognosis.
- **Rates of aggressive non-endometrioid subtypes significantly increased among all women and were twice as high among non-Hispanic Black women compared with other groups for reasons still unclear**
- In a large cohort study of 208,587 women showed increasing uterine cancer mortality is associated with increasing rates of aggressive non-endometrioid carcinomas, but racial and ethnic disparities cannot solely be explained by histologic subtype and stage at diagnosis.
- Among all women, uterine corpus cancer mortality rates increased significantly by 1.8% per year from 2010 to 2017, as did rates of non-endometrioid carcinomas (2.7%), **with increases occurring in Asian (3.4%), Black (3.5%), Hispanic (6.7%) and White women (1.5%).**
- In contrast, endometrioid carcinoma mortality rates remained stable
- Despite stable incidence rates, endometrioid cancer mortality rates have not decreased over the past decade at the population level, suggesting limited progress in treatment for these cancers. The substantial disparities in mortality rates among non-Hispanic Black women cannot be fully explained by subtype distribution and stage at diagnosis.

JAMA Oncol. doi:10.1001/jamaoncol.2022.0009 May 5, 2022. and Obstet Gynecol 2022;139:645–59 DOI: 10.1097/AOG.0000000000004710

156

New Developments in Cancer Incidence – Brain & CNS

157

- Brain or spinal cord tumors makeup less than 2% of all cancers diagnosed each year in the United States.
- There are over 130 different types of brain and spinal cord tumors – not all are malignant
- The diversity and rarity of some brain tumors pose unique challenges to developing new treatments.
- Liquid biopsy is helping distinguish between different types of brain tumors more easily in adults
- One specific liquid biopsy test was able to detect a specific genetic alteration in children with genomic changes in DNA shed from medulloblastoma that helped identify kids that had high risk of residual tumor after treatment so they got more aggressive therapy upfront and closer follow-up for relapse.
- Artificial Intelligence is also being used to analyze images to facilitate the classification and diagnosis of brain tumors during surgery and to examine brains for residual tumor following surgical resection
- PARP Inhibitors are being used to treat glioblastoma (Gr IV), astrocytoma (Gr I-III), oligodendroglioma (Gr II-III), medulloblastoma (Gr IV) plus other Gr I-IV neoplasms with IDH1 mutations looking for changes in tumor metabolism
- Other genetics of interest include tumors with BRAF and WNT for gliomas and neurofibromatosis 1
- NCI Brain Tumor Trials Collaborative (BTTC) and NCI-CONNECT Clinical Trial Network 33 centers

Society for Neuro-Oncology, Ichimura et al.: IDH1 mutations in gliomas

157

New Developments in Cancer Incidence – Pediatric Liver

158

- "Hepatoblastomas with carcinoma features represent a biological spectrum of aggressive neoplasms in children and young adults. A high-risk subtype of pediatric 'hepatoblastoma with hepatocellular carcinoma features' has been discovered using molecular profiling"
- Almost all pediatric liver cancers str classified as either hepatoblastoma or hepatocellular carcinoma.
- However, pediatric pathologists have noted that certain liver tumors have histological characteristics that do not readily match either of these two carcinoma models.
- They designated these tumor types collectively as HBs with HCC features (HBCs) and outlined histological and molecular characteristics for their classification.
- The newly described tumors tended to be more resistant to standard chemotherapy and have poor outcomes when not treated with more aggressive surgical approaches, including transplantation.
- Based on the findings, the Baylor College of Medicine Team proposed a diagnostic algorithm to stratify HBCs and guide specialized treatment for these kids as children with HBCs may benefit from treatment strategies that differ from the guidelines for patients with hepatoblastoma and hepatocellular carcinoma

13 May 2022, Journal of Hepatology. DOI: 10.1016/j.jhep.2022.04.035

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New Developments in Cancer Screening

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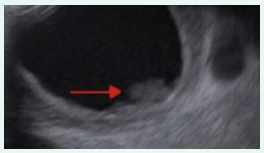
- **Targeted Screening Programs for pancreato-hepato-biliary cancers**
  - Early detection of tumor or precursor lesions with dysplasia the most effective approach to improve survival
  - Use of Endoscopic Ultrasound (EUS) or MRI Cholangiopancreatography (MRCP) -- with or without biopsy
  - Some Centers Started Identifying High-Risk Populations and Began Screening Programs in 2016
  - High-Risk Population Screening – male, black, Ashkenazi Jewish descent, obesity, smoking, diabetes
  - Hereditary Factors (BRCA2, HNPCC, BRCA1, cystic fibrosis, FAP) and Familial Pancreatic Cancer (FPC)
  - Personal History of Pancreatitis – acute, chronic, multiple episodes
  - Per SEER Instruction - Must do a biopsy that shows one or more of the following
    - PanIN3 – Pancreatic Intraepithelial Neoplasia Grade 3
    - High grade dysplasia
    - Carcinoma in-situ
    - Invasive carcinoma



  - If they don't do a biopsy – abnormality or clinical dx of malignant IPMN – the case is not reported
  - This is problematic since many of these patients may go on to have treatment even a Whipple
  - Novel techniques such as needle-based confocal laser endomicroscopy (nCLE), along with biomarkers, may be helpful to identify pancreatic lesions with more aggressive malignant potential.
  - We are also seeing this condition in other branch ducts of biliary system and hepatic duct system
  - These are mucinous and ductal carcinomas – non-invasive and early invasive

159

New Developments in Tumor Classification & Biomarker Testing

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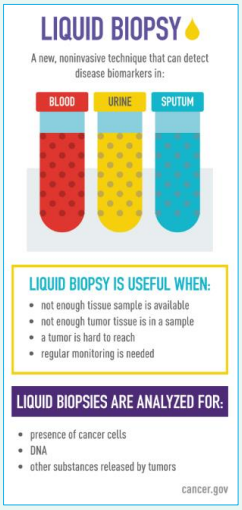
- Tumor Tissue Markers – sample of the tumor
- Circulating Tumor Markers – blood, urine, stool, body fluids
- Colorectal Cancer ctDNA Testing – tests for single DNA abnormality
- OncotypeDX – breast, colon, noninvasive breast – just a few genes in testing
- Leukemia Panel Testing for Subtype of Leukemia
- Liquid Biopsy FDA-Approved Assays – August 2020 – for solid tumors only
  - Guardant 360 CDx – 74 genes and other biomarkers
  - FoundationOne Liquid CDx – 324 genes and MSI
  - Caris Life Sciences – 592 Genes (not FDA Approved yet)
- Multi-Cancer Early Detection (MCED) Assays – a subset of liquid biopsy tests
  - Changes in DNA and/or RNA sequences,
  - Patterns of DNA methylation (a chemical change to DNA),
  - Patterns of DNA fragmentation (how the DNA is broken into smaller pieces),
  - Levels of protein biomarkers, and
  - Antibodies that a person may develop against components of growing cancer cells.



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New Developments in Tumor Classification & Biomarker Testing

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- Need to know what the molecular biomarker or tumor marker is for:
- Molecular Biomarker Testing for Risk Assessment
- Molecular Biomarker Testing for Confirmation of Disease
- Molecular Biomarker Testing for Diagnostic Workup & Extent of Disease
- Molecular Biomarker Testing for (Sub)Classification of Neoplasm
- Molecular Biomarker Testing for Treatment Choices
- Other and To Be Determined Uses

161

New Developments in Diagnostic Tools & Cancer Treatments

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- Flash Therapy – A REVOLUTION in Therapy
  - Rather than days or weeks of fractions of radiation given to a patient, the entire massive dose is delivered all at once very quickly in one fraction sparing normal tissue
  - Deliver radiation therapy at flash dose rates 100 times what we would normally
- Image-Guided Radiotherapy Systems
  - MRI-Guided Linear Accelerators – real-time 'dynamic' imaging during radiation
    - Two Systems Currently Available: Elekta Unity and Viewray MRIdian Systems
  - PET Radiotracer Detectors can image metastases targeting each one in real-time
    - Reflexion PET-targeting adaptive therapy technology
- Proton Therapy now considered a Mainstream Treatment Option
- PSMA (prostate-specific membrane antigen) PET imaging w/68Ga-PSAM-11
- Synthetic CT from MRI converts MRI datasets into synthetic CT image datasets for use in planning process eliminating need for a separate CT Scan
- Artificial Intelligence in Radiotherapy - Increasing Speed of Treatment Planning Systems and the Integration of Artificial Intelligence
- A new ASTRO Guide to Managing Primary Brian Tumors and Brain Metastases

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New Developments in Diagnostic Tools & Cancer Treatments

163

- New image-based model may inform 'how aggressively a lung cancer should be treated'
- Lung cancer screening identifies cancers at early and presumably more treatable stages and can improve overall mortality rates for lung cancer. There is always a possibility of overdiagnosis and overtreatment in patients with screen-detected tumors.
- Overdiagnosis of pulmonary nodules can result in unnecessary diagnostic procedures that are often invasive, associated with increased costs, and associated with added stress for patients and their families. In the National Lung Screening Trial (NLST), 10 to 27% lung cancers were over-diagnosed.
- NLST created a repository of thousands of CT and Path images available from NCI for researchers to use in study.
- Using images and data from the NLST CT Repository, Moffitt Cancer Center in Tampa, Florida has developed an image-based model based on intra-tumor radiomics and volume doubling time (VDT) to help identify high-risk versus low-risk tumors that could inform how aggressively lung cancers should be treated.
- Pulmonary nodules that are of an infectious or inflammatory pathophysiology have a VDT of less than 20 days, a VDT of less than 400 days (and greater than 20 days) represents a high likelihood of malignancy, and a VDT above 500 days is likely a benign nodule.
- Furthermore, not all early stages are the same. There is a spectrum of intermediate-risk cancers as well. And some early-stage cancers can be very aggressive with poor outcomes that require aggressive treatment and adjuvant therapies. This model helps distinguish between them.
- The radiomic model used NLST data to establish 65 stable and reproducible features including; volume doubling time of lung nodules, volume doubling time cut-off points, radio-genomics, tumor genomics, biomarkers, histology, tumor location, patient characteristics, screening interval, smoking status, compactness of nodule, tumor boundary, tumor edges, roundness, and other factors were input to the model to predict tumor behavior of screen-detected lung cancers. These in turn were used to guide treatment decisions and timing of treatment based on the model.

Cancer Biomarkers, vol. 33, no. 4, pp. 489-501, 2022

Pérez-Morales, Jaileene et al. 'Volume Doubling Time and Radiomic Features Predict Tumor Behavior of Screen-detected Lung Cancers'. 1 Jan. 2022 : 489 – 501.

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FCDS Florida Statewide Cancer Registry
Florida Cancer Data System

Welcome to Session IV of the FCDS Annual Meeting

Session	Date/Time	Estimated Time	2022 FCDS Virtual Annual Conference - Topic	Speaker
FCDS Session 4	9/01/2022 1pm-3pm	1:00pm-2:00pm	Myeloid Neoplasms – MPN, MDS, Acute/Chronic Myeloid Leukemia	Steven Peace, CTR - FCDS
		2:00pm-3:00pm	Lymphoid Neoplasms – Nodal/Extra-Nodal Lymphoma, Lymphoid Leukemia, Plasma Cell Neoplasms, the Lymphoma/Leukemia Group	Steven Peace, CTR - FCDS

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Outline

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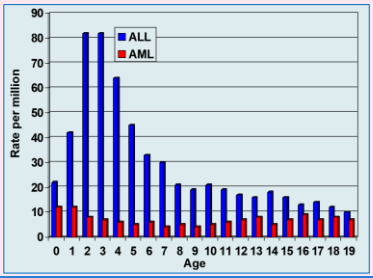
- Introduction to Myeloid Neoplasms
- Pediatric versus Adult Myeloid Neoplasms
- Inaugural WHO Classification of Pediatric Tumors
- Blood, Bone Marrow and Circulatory System - Anatomy
- Milestones in the Classification of Tumors of Hematopoietic Tissues
- "Overlap Syndromes" – What is the Diagnosis? How Many Primaries?
- WHO Classification of Hematolymphoid Tumors, 5th ed
- Molecular Genetics and Tumor Markers for Myeloid Neoplasms
- The 2022 Hematopoietic Manual and Hematopoietic Data Base
- Diagnostic Confirmation for Myeloid Neoplasms & "Transformations"
- Workup and Staging Myeloid Neoplasms – Never N/A or No Staging
- Treatment Guidelines for Myeloid Neoplasms
- Blood and Marrow Stem Cell Transplant Procedures
- Documentation Needed for Myeloid Neoplasms
- 2022 FCDS Audit of Lymphoid and Myeloid Neoplasms
- 2023 Myeloid Neoplasms Webcast – 1/19/2023 – Post-Audit
- Questions

Cytogenetic	Molecular	FAB	Characteristics
t(8;21)	*AML1-ETO (RUNX1-RUNX1T1)*	M2	Auer Rods Chloromas Good px
t(15;17), variants	*PML-RARA (variant)-RARA*	M3	Granules/Auer rods DIC/bleeding Good px (with ATRA/Arsenic)
inv(16)/ t(16;16)	*CBFB-MYH11*	M4Eo	Eos w/ baso granules Chloromas Good px
abnormal 11q23	*MLL-{partner}*	M4 M5	Infant WBC/skin/CNS/gums t-AML after topo II inh



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Pediatric versus Adult Myeloid Neoplasms

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- Myeloproliferative (MPN) and Myelodysplastic (MDS) Conditions are exceedingly rare in children but fairly common in older adults
- The drivers/causes for MPN and MDS and the genetic makeup are different in children than in adults and probably different diseases
- CMML and JMML (myelomonocytic leukemias) are also probably different types of MML diseases – juvenile and chronic in elderly
- CMML is not CML – be careful delineating the differences
- AML occurs most frequently in adults over age 60
- AML is much less common in children - as young as a few days old
- Pediatric AML is entirely different genetically than adult AML
- Knowing that pediatric myeloid and older adult myeloid neoplasms are totally different diseases that happen to have the same name is confusing
- The primary reason molecular pathology now plays a huge role in distinguishing differences in myeloid neoplasms – not just pediatric versus adult but differentiating the numerous subtypes and requiring different diagnostic/treatment approaches

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Inaugural WHO Classification of Pediatric Tumors

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A Summary of the Inaugural WHO Classification of Pediatric Tumors: Transitioning from the Optical into the Molecular Era

Stefan M. Pfister[1,2,3], Miguel Reyes-Múgica[4,5], John K.C. Chan[6], Henrik Hasle[7], Alexander J. Lazar[8], Sabrina Rossi[9], Andrea Ferrari[10], Jason A. Jarzembowski[11], Kathy Pritchard-Jones[12], D. Ashley Hill[13], Thomas S. Jacques[14,15], Pieter Wesseling[16,17], Dolores H. López Terrada[18], Andreas von Deimling[19,20], Christian P. Kratz[21], Ian A. Cree[22], and Rita Alaggio[9]

ABSTRACT Pediatric tumors are uncommon, yet are the leading cause of cancer-related death in childhood. Tumor types, molecular characteristics, and pathogenesis are unique, often originating from a single genetic driver event. The specific diagnostic challenges of childhood tumors led to the development of the first World Health Organization (WHO) Classification of Pediatric Tumors. The classification is rooted in a multilayered approach, incorporating morphology, IHC, and molecular characteristics. The volume is organized according to organ sites and provides a single, state-of-the-art compendium of pediatric tumor types. A special emphasis was placed on "blastomas," which variably recapitulate the morphologic maturation of organs from which they originate.

Significance: In this review, we briefly summarize the main features and updates of each chapter of the inaugural WHO Classification of Pediatric Tumors, including its rapid transition from a mostly microscopic into a molecularly driven classification systematically taking recent discoveries in pediatric tumor genomics into account.

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Inaugural WHO Classification of Pediatric Tumors

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Myeloid neoplasms
- *Myeloproliferative neoplasms*
  - Chronic myeloid leukemia, *BCR::ABL1* positive
- *Myelodysplastic/myeloproliferative neoplasms*
  - Juvenile myelomonocytic leukemia
- *Myelodysplastic syndromes*
  - Refractory cytopenia of childhood
  - Myelodysplastic syndrome with excess blasts
- *Myeloid neoplasms with germline predisposition*
- *Myeloid proliferations associated with Down syndrome*
- *Acute myeloid leukemia and related neoplasms*
  - Acute myeloid leukemia, NOS
  - Acute myeloid leukemia with recurrent genetic abnormalities
    - AML with t(8;21)(q22;q22); *RUNX1::RUNX1T1*
    - AML with inv(16)(p13.1q22) or t(16;16)(p13.1;q22); *CBFB::MYH11*
    - APL with t(15;17)(q24.1;q21.2); *PML::RARA*
    - AML with *KMT2A*-rearrangement *new*
    - AML with t(6;9)(p23;q34.1); *DEK::NUP214*
    - AML with inv(3)(q21q26)/t(3;3)(q21;q26); *GATA2, RPN1::MECOM*
    - AML with *ETV6*-fusion *new*
    - AML with t(8;16)(p11.2;p13.3); *KAT6A::CREBBP new*
    - AML with t(1;22)(p13.3;q13.1); *RBM15::MKL1*
    - AML with *CBFA2T3::GLIS2* (inv(16)(p13q24)) *new*
    - AML with *NUP98*-fusion *new*
    - AML with t(16;21)(p11;q22); *FUS::ERG new*
    - AML with mutated *NPM1*
    - AML with bZIP mutated *CEBPA*

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Blood, Bone Marrow, Circulatory System - Anatomy

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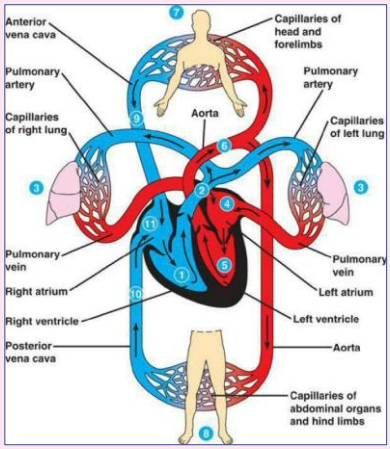

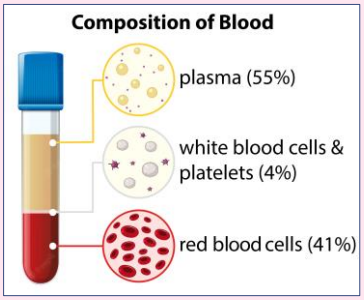

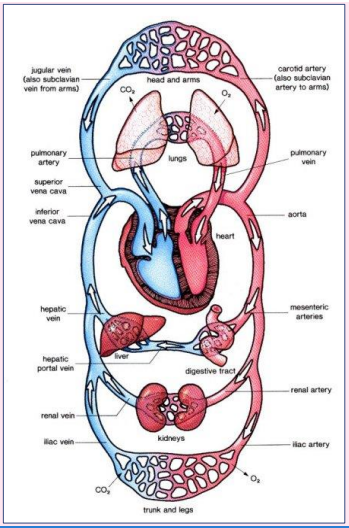

169

"Overlap Myeloid Syndromes" – Number of Primaries

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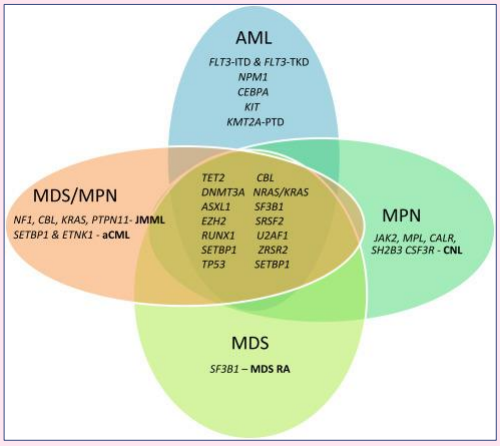

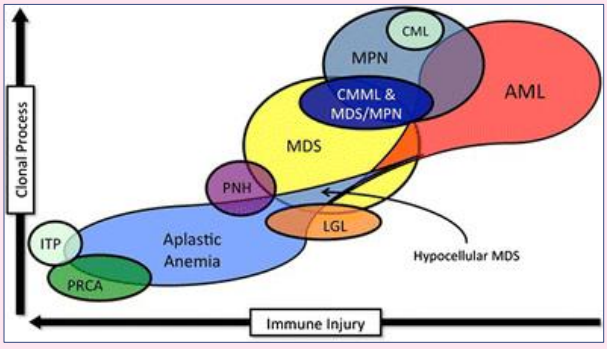

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Chronic versus Acute

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Note: Patients with 'chronic' neoplastic conditions *such as chronic leukemia, myelodysplastic syndromes and myeloproliferative diseases, or other lymphoid/myeloid neoplasms designated as 'chronic' disease always have some level of active disease and must be reported. Treatment for these neoplasms may achieve a state of 'clinical remission'. However, these conditions cannot be cured without aggressive therapy including high-dose chemotherapy plus bone marrow transplant or stem cell transplant. The chronic nature of their disease makes these cases always reportable, regardless of clinical status.*

MPN, MDS, Chronic Leukemia, Myeloma – ARE CHRONIC CONDITIONS
THEY CAN ONLY BE CURED WITH Marrow/Stem CELL TRANSPLANT
They may have 'clinical remission' but not 'total remission/cure'
ICD-10-CM Codes may indicate 'in remission' – but this remission is rarely a 'cure'

171

Molecular Genetics and Tumor Markers for Myeloid Neoplasms

172

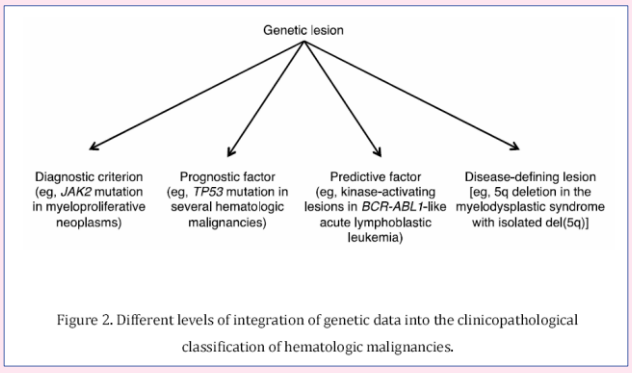

Figure 2. Different levels of integration of genetic data into the clinicopathological classification of hematologic malignancies.

172

WHO Classification of Hematolymphoid Tumors, 5th ed

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The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Myeloid and Histiocytic/ Dendritic Neoplasms

Joseph D. Khoury[1], Eric Solary[2], Oussama Abla[3], Yassmine Akkari[4], Rita Alaggio[5], Jane F. Apperley[6], Rafael Bejar[7], Emilio Berti[8], Lambert Busque[9], John K. C. Chan[10], Weina Chen[11], Xueyan Chen[12], Wee-Joo Chng[13], John K. Choi[14], Isabel Colmenero[15], Sarah E. Coupland[16], Nicholas C. P. Cross[17], Daphne De Jong[18], M. Tarek Elghetany[19], Emiko Takahashi[20], Jean-Francois Emile[21], Judith Ferry[22], Linda Fogelstrand[23], Michaela Fontenay[24], Ulrich Germing[25], Sumeet Gujral[26], Torsten Haferlach[27], Claire Harrison[28], Jennelle C. Hodge[29], Shimin Hu[1], Joop H. Jansen[30], Rashmi Kanagal-Shamanna[1], Hagop M. Kantarjian[31], Christian P. Kratz[32], Xiao-Qiu Li[33], Megan S. Lim[34], Keith Loeb[35], Sanam Loghavi[1], Andrea Marcogliese[19], Soheil Meshinchi[36], Phillip Michaels[37], Kikkeri N. Naresh[35], Yasodha Natkunam[38], Reza Nejati[39], German Ott[40], Eric Padron[41], Keyur P. Patel[1], Nikhil Patkar[42], Jennifer Picarsic[43], Uwe Platzbecker[44], Irene Roberts[45], Anna Schuh[46], William Sewell[47], Reiner Siebert[48], Prashant Tembhare[42], Jeffrey Tyner[49], Srdan Verstovsek[31], Wei Wang[1], Brent Wood[50], Wenbin Xiao[51], Cecilia Yeung[35] and Andreas Hochhaus[52]

Leukemia (2022) 36:1703–1719; https://doi.org/10.1038/s41375-022-01613-1

173

WHO Classification of Hematolymphoid Tumors, 5th ed

174

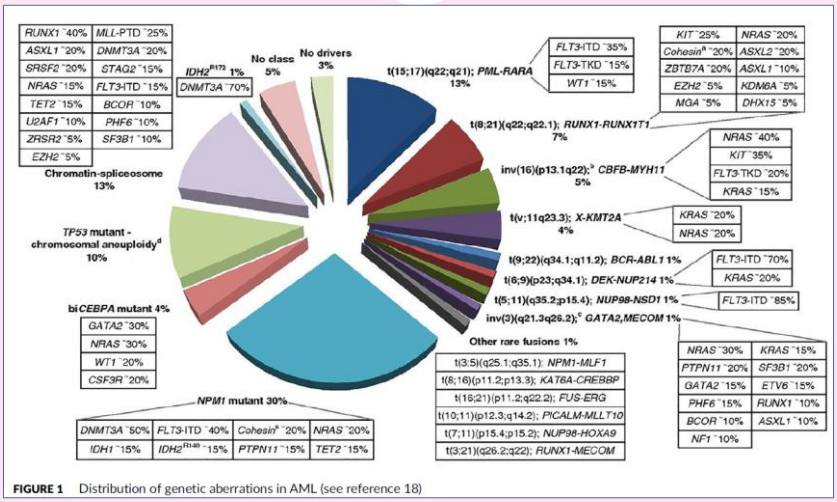


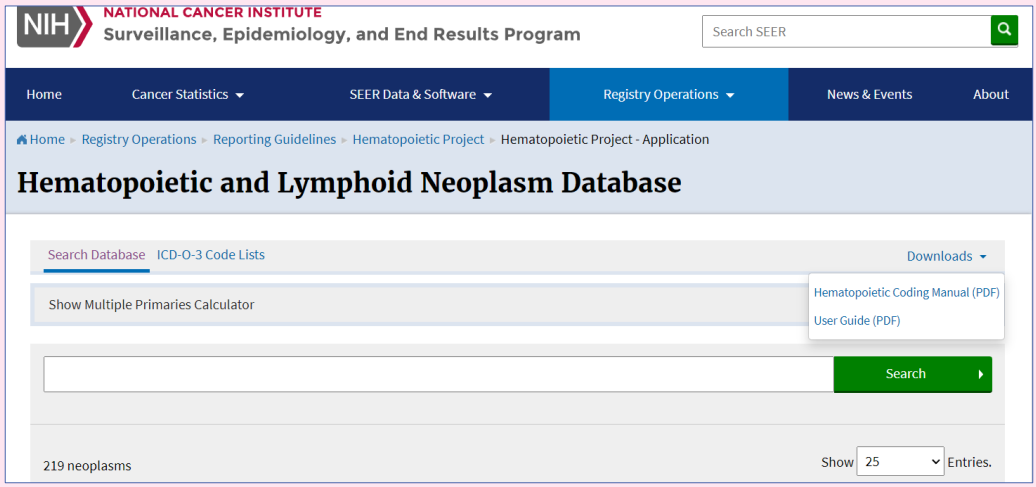
FIGURE 1 Distribution of genetic aberrations in AML (see reference 18)

Acute myeloid leukemia: 2019 update on risk-stratification and management - DOI: 10.1002/ajh.25214

174

Demonstration Hematopoietic Manual and Hematopoietic Data Base

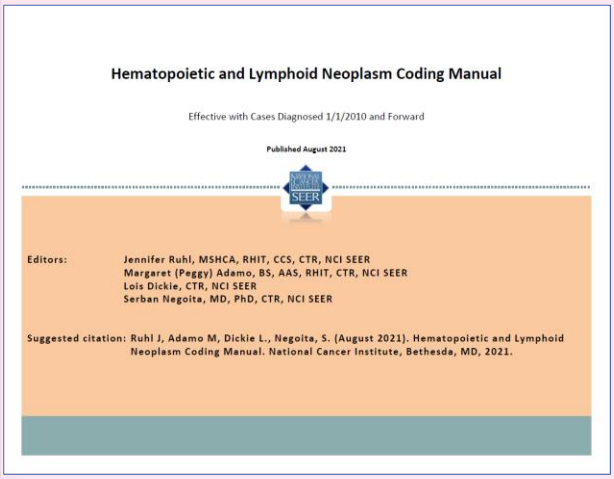
175



175

The 2022 Hematopoietic Manual and Hematopoietic Data Base

176



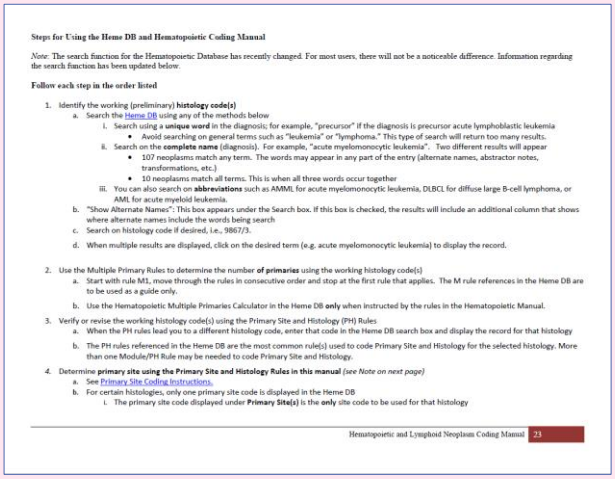
Hematopoietic and Lymphoid Neoplasm Coding Manual

Effective with Cases Diagnosed 1/1/2010 and Forward

Published August 2021

Editors: Jennifer Ruhl, MSHCA, RHIT, CCS, CTR, NCI SEER
Margaret (Peggy) Adamo, BS, AAS, RHIT, CTR, NCI SEER
Lois Dickie, CTR, NCI SEER
Serban Negoita, MD, PhD, CTR, NCI SEER

Suggested citation: Ruhl J, Adamo M, Dickie L., Negoita, S. (August 2021). Hematopoietic and Lymphoid Neoplasm Coding Manual. National Cancer Institute, Bethesda, MD, 2021.



Steps for Using the Heme DB and Hematopoietic Coding Manual

Note: The search function for the Hematopoietic Database has recently changed. For most users, there will not be a noticeable difference. Information regarding the search function has been updated below.

Follow each step in the order listed

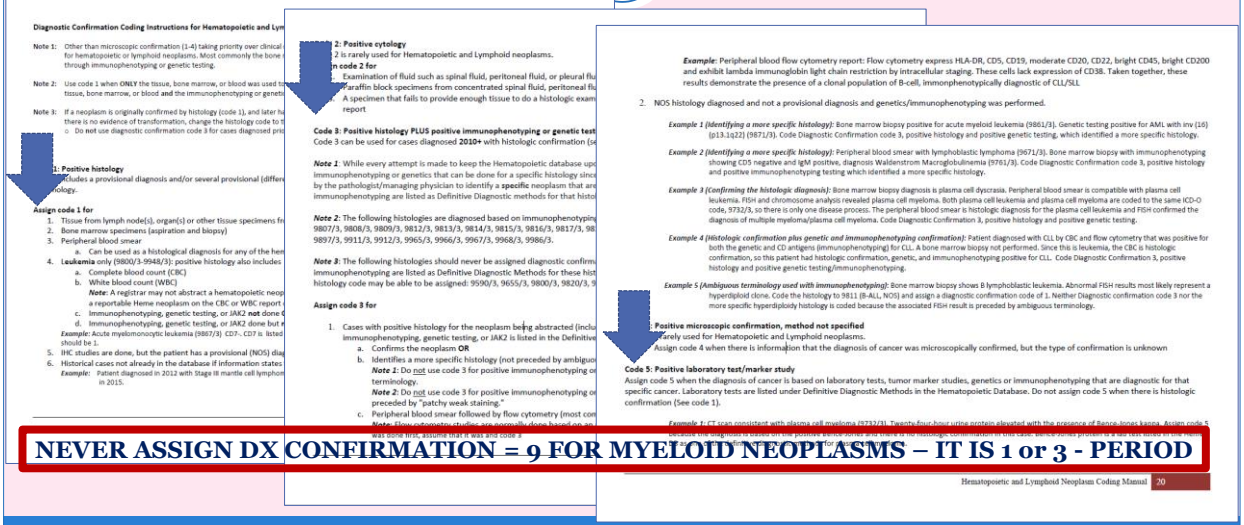
1. Identify the working (preliminary) **histology code(s)**
   a. Search the Heme DB using any of the methods below
      i. Search using a **unique word** in the diagnosis; for example, "precursor" if the diagnosis is precursor acute lymphoblastic leukemia
         - Avoid searching on general terms such as "leukemia" or "lymphoma." This type of search will return too many results.
      ii. Search on the **complete name** (diagnosis). For example, "acute myelomonocytic leukemia". Two different results will appear
         - 107 neoplasms match any term. The words may appear in any part of the entry (alternate names, abstractor notes, transformations, etc.)
         - 10 neoplasms match all terms. This is when all three words occur together
      iii. You can also search on **abbreviations** such as AMML for acute myelomonocytic leukemia, DLBCL for diffuse large B-cell lymphoma, or AML for acute myeloid leukemia.
   b. "Show Alternate Names": This box appears under the Search box. If this box is checked, the results will include an additional column that shows where alternate names include the words being search
   c. Search on histology code if desired, i.e., 9867/3.
   d. When multiple results are displayed, click on the desired term (e.g. acute myelomonocytic leukemia) to display the record.
2. Use the Multiple Primary Rules to determine the number **of primaries** using the working histology code(s)
   a. Start with rule M1, move through the rules in consecutive order and stop at the first rule that applies. The M rule references in the Heme DB are to be used as a guide only.
   b. Use the Hematopoietic Multiple Primaries Calculator in the Heme DB **only** when instructed by the rules in the Hematopoietic Manual.
3. Verify or revise the working histology code(s) using the Primary Site and Histology (PH) Rules
   a. When the PH rules lead you to a different histology code, enter that code in the Heme DB search box and display the record for that histology
   b. The PH rules referenced in the Heme DB are the most common rule(s) used to code Primary Site and Histology for the selected histology. More than one Module/PH Rule may be needed to code Primary Site and Histology.
4. Determine **primary site using the Primary Site and Histology Rules in this manual** *(see Note on next page)*
   a. See Primary Site Coding Instructions.
   b. For certain histologies, only one primary site code is displayed in the Heme DB
      i. The primary site code displayed under **Primary Site(s)** is the **only** site code to be used for that histology

Hematopoietic and Lymphoid Neoplasm Coding Manual 23

176

Diagnostic Confirmation for Myeloid Neoplasms

177



NEVER ASSIGN DX CONFIRMATION = 9 FOR MYELOID NEOPLASMS – IT IS 1 or 3 - PERIOD

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Diagnostic Confirmation for Myeloid Neoplasms

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Code 3: Positive histology PLUS positive immunophenotyping or genetic testing
Code 3 can be used for cases diagnosed **2010+** with histologic confirmation (see code 1) **AND** immunophenotyping, genetic testing, or JAK2 confirmation

Note 1: While every attempt is made to keep the Hematopoietic database updated, it is impossible to keep the Hematopoietic database updated with all the immunophenotyping or genetics that can be done for a specific histology since clinical medicine continues to evolve. If immunophenotyping or genetics are used by the pathologist/managing physician to identify a **specific** neoplasm that are not included in the Hematopoietic database, and genetic testing and/or immunophenotyping are listed as Definitive Diagnostic methods for that histology, go ahead and use these.

Note 2: The following histologies are diagnosed based on immunophenotyping or genetics and therefore should only be diagnostic confirmation 3: 9806/3, 9807/3, 9808/3, 9809/3, 9812/3, 9813/3, 9814/3, 9815/3, 9816/3, 9817/3, 9818/3, 9819/3, 9865/3, 9866/3, 9867/3, 9868/3, 9869/3, 9870/3, 9871/3, 9872/3, 9873/3, 9874/3, 9875/3, 9876/3, 9877/3, 9878/3, 9879/3, 9896/3, 9897/3, 9911/3, 9912/3, 9965/3, 9966/3, 9967/3, 9968/3, 9986/3.

Note 3: The following histologies should never be assigned diagnostic confirmation 3 since they are non specific codes and neither genetic testing or immunophenotyping are listed as Definitive Diagnostic Methods for these histologies. If there is immunophenotyping or genetics available, then a more specific histology code may be able to be assigned: 9590/3, 9655/3, 9800/3, 9820/3, 9860/3, 9863/3, 9980/3, 9982/3, 9989/3, 9991/3.

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- **Histology** – Microscopy examines the microanatomy of cells, tissues, and organs as seen through a microscope – physical characteristics. It examines the correlation between structure and function.
- **Biologic Tumor Marker** – Immunoassay can be used to identify anything present in or produced by cancer cells or other cells from blood, urine and body fluids. Tumor Markers provide information about a cancer, aggressiveness, what kind of treatment it may respond to, or whether it is responding to treatment. Tumor markers can be proteins, conjugated proteins, peptides and carbohydrates.
- **Immunohistochemistry** – a microscopy-based technique that allows selective identification and localization of antigens in cells. IHC selectively identifies antigens (proteins) in cells from tissue by exploiting the principle of antibodies binding specifically to antigens in biological tissues. IHC uses light or fluorescent microscopy to analyze results. IHC is less expensive than flow cytometry.
- **Flow Cytometry** – a laser-based technique that detects and measures the physical and chemical characteristics of a cell population. Flow cytometry can be used to count and sort cells (identify proliferation of cells and type), determine cell characteristics, identify biomarkers and to diagnose/classify certain cancers. It is more precise metric for antigens than histology or IHC testing.
- **Cluster of Differentiation (CD) Molecules** – cell surface molecules used to classify white blood cells that are especially important for diagnosis of lymphomas and leukemias. CD marker antibodies have been widely used for cell sorting, phenotyping, and blood cancer diagnosis and for treatment.
- **Immunophenotype** – uses the CD system to define markers associated with specific cells or conditions
- **Proteomics** – provide valuable information on the identity, expression levels, and modification of proteins. For example, cancer proteomics unraveled key information in mechanistic studies on tumor growth and metastasis, which has contributed to the identification of clinically applicable biomarkers as well as therapeutic targets. Proteomics-based technologies have enabled the identification of potential biomarkers and protein expression patterns that can be used to assess tumor prognosis, prediction, tumor classification, and to identify potential responders for specific therapies
- **Cytogenetics** - involves testing samples of tissue, blood, or bone marrow in a laboratory to look for changes in chromosomes, including broken, missing, rearranged, or extra chromosomes. Changes in certain chromosomes may be a sign of a genetic disease or condition or some types of cancer. FISH is common cytogenetics test.
- **DNA Microarray** – used to study the extent to which certain genes are turned on or off in cells and tissues. It is used to identify the changes in gene sequences that are most often associated with a particular disease.
- **Next Generation Sequencing** – a large-scale DNA and RNA sequencing technology to determine the order of nucleotides in entire genomes or targeted regions of DNA or RNA in cells and tissues.

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Treatment Guidelines for Myeloid Neoplasms

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- NCCN Treatment Guidelines:
  - Myeloproliferative Neoplasms
  - Myelodysplastic Syndromes
  - Chronic Myeloid Leukemia
  - Histiocytic Neoplasms, NOS
  - Mastocytosis
  - Acute Myeloid Leukemia

RISK STRATIFICATION BY GENETICS IN NON-APL AML[1,2]

Risk Category*	Genetic Abnormality
Favorable	t(8;21)(q22;q22.1); *RUNX1-RUNX1T1* inv(16)(p13.1q22) or t(16;16)(p13.1;q22); *CBFB-MYH11* Biallelic mutated *CEBPA* Mutated *NPM1* without *FLT3*-ITD or with *FLT3*-ITD^{low}†
Intermediate	Mutated *NPM1* and *FLT3*-ITD^{high}† Wild-type *NPM1* without *FLT3*-ITD or with *FLT3*-ITD^{low}† (without adverse-risk genetic lesions) t(9;11)(p21.3;q23.3); *MLLT3-KMT2A*‡ Cytogenetic abnormalities not classified as favorable or adverse
Poor/Adverse	t(6;9)(p23;q34.1); *DEK-NUP214* t(v;11q23.3); *KMT2A* rearranged t(9;22)(q34.1;q11.2); *BCR-ABL1* inv(3)(q21.3q26.2) or t(3;3)(q21.3;q26.2); *GATA2,MECOM(EVI1)* -5 or del(5q); -7; -17/abn(17p) Complex karyotype,§ monosomal karyotype‖ Wild-type *NPM1* and *FLT3*-ITD^{high}† Mutated *RUNX1*¶ Mutated *ASXL1*¶ Mutated *TP53*#

- NCCN Guidelines Include:
  - Detailed Description of Diseases
  - Descriptions of Genetic Mutations
  - Evaluation of Disease at Diagnosis
  - Risk Stratification by Genetics
    - Criteria for Low Risk
    - Criteria for Intermediate Risk
    - Criteria for High Risk
  - Non-Genetic Risk Stratification Factors
  - Treatment Strategies by Risk Group
    - Induction Therapy
    - Post-Induction Therapy
    - Consolidation Therapy
    - Post-Remission Maintenance Therapy
    - BMT/SCT Transplant Criteria
    - Monitoring Post-Treatment
    - Relapsed/Refractory Disease
  - Response Criteria

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Blood & Marrow Stem Cell Transplant Procedures

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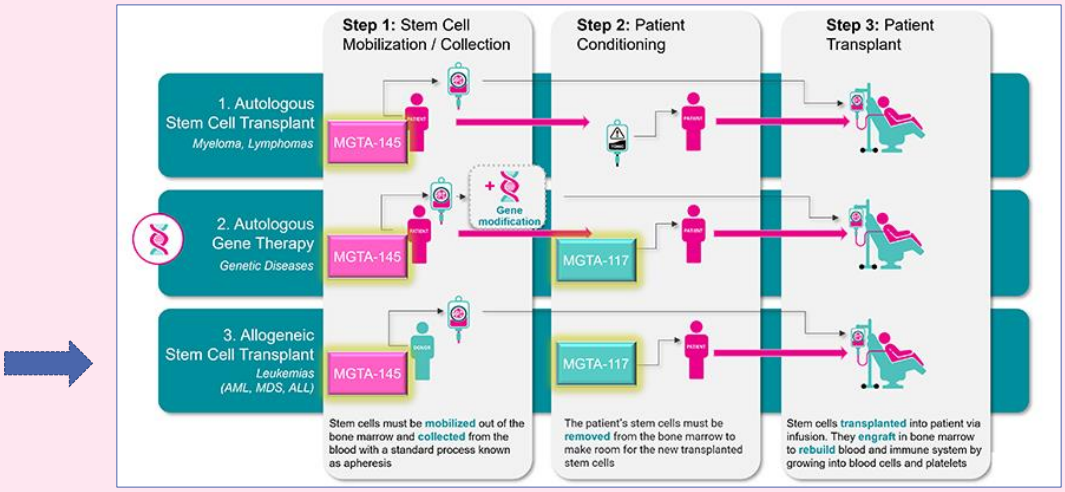

https://www.magentatx.com/revolutionizing-medicine/programs/

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FCDS Florida Cancer Data System

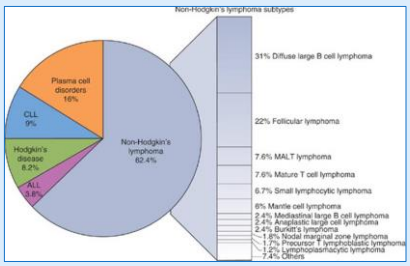
2022 Introduction to Lymphoid Neoplasms

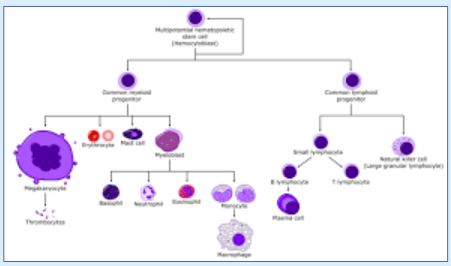
182

FCDS VIRTUAL ANNUAL CONFERENCE

9/1/2022

STEVEN PEACE, CTR





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Outline

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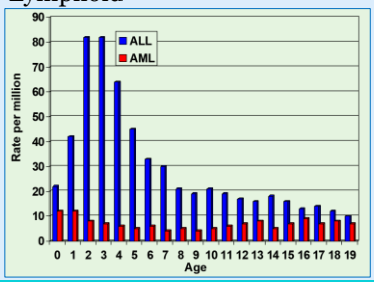
- Introduction to Lymphoid Neoplasms
- Pediatric versus Adult Lymphoid Neoplasms
- Inaugural WHO Classification of Pediatric Tumors
- Lymphatic System and Circulatory System - Anatomy
- Milestones in the Classification of Tumors of Lymphoid Tissues
- WHO Classification of Hematolymphoid Tumors, 5th ed
- The 2022 Hematopoietic Manual and Hematopoietic Data Base
- Demonstration Hematopoietic Manual and Hematopoietic Data Base - Lymphoid
- Diagnostic Confirmation for Lymphoid Neoplasms
- Molecular Genetics and Tumor Markers for Lymphoid Neoplasms
- Workup and Staging Lymphoid Neoplasms
- Treatment Guidelines for Lymphoid Neoplasms
- Bone Marrow/Stem Cell Transplant Procedures
- Documentation Needed for Lymphoid Neoplasms
- 2022 FCDS Audit of Lymphoid and Myeloid Neoplasms
- 2023 Lymphoid Neoplasms Webcast – 2/16/2023 – Post-Audit
- Questions

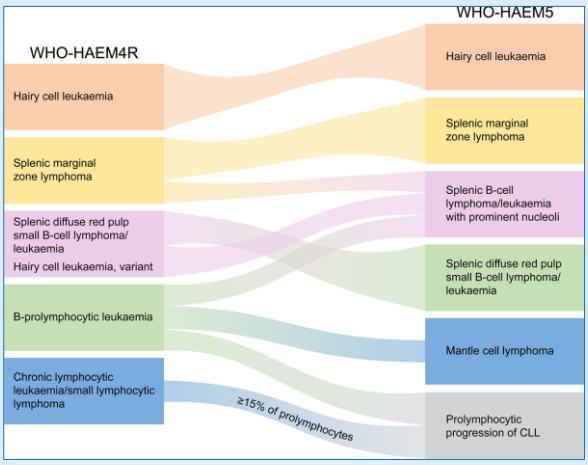
LYMPHOID DISORDER	IMMUNOPHENOTYPE
CLL/SLL	CD5, 19,20,23, 43 (sometimes)
Follicular lymphoma	CD10,19, 20, bcl-2,
Marginal zone lymphoma	CD20, 79a
Mantle cell lymphoma	CD5, 19,20, cyclin D1
Hairy cell leukemia	CD11c, 19, 20, 22, 25, 103
Diffuse large B cell lymphoma	CD19, 20, bcl-6
Burkitt lymphoma	CD19,20, CD10 (often)
Anaplastic large cell lymphoma	CD30
Mycosis fungoides	CD2, 3, 4, 5
Classical Hodgkin	CD15, 30
Nodular lymphocyte predominate Hodgkin lymphoma	CD20
Myeloid leukemias	CD13, 33

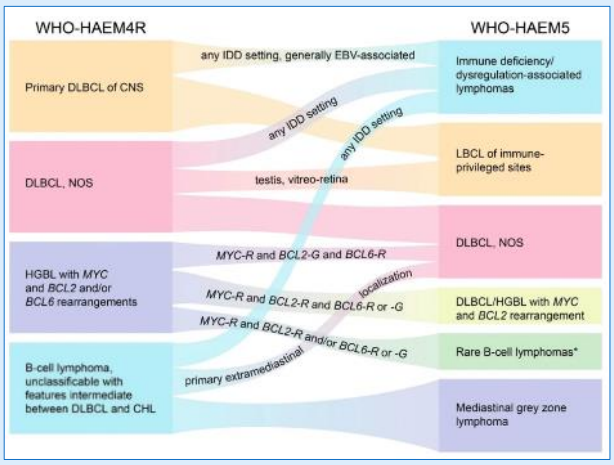


183

Introduction to Lymphoid Neoplasms

184

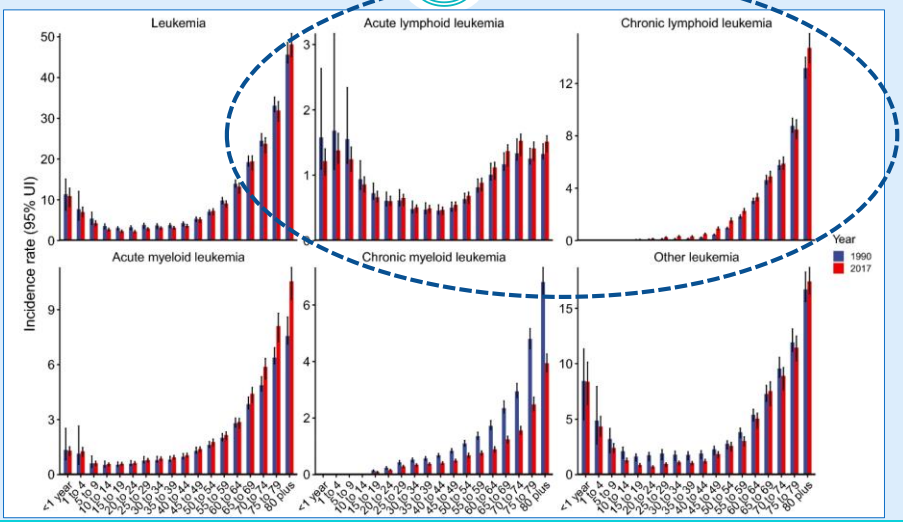




184

Pediatric versus Adult Lymphoid Neoplasms

185



Inaugural WHO Classification of Pediatric Tumors

186

A Summary of the Inaugural WHO Classification of Pediatric Tumors: Transitioning from the Optical into the Molecular Era

Stefan M. Pfister[1,2,3], Miguel Reyes-Múgica[4,5], John K.C. Chan[6], Henrik Hasle[7], Alexander J. Lazar[8], Sabrina Rossi[9], Andrea Ferrari[10], Jason A. Jarzembowski[11], Kathy Pritchard-Jones[12], D. Ashley Hill[13], Thomas S. Jacques[14,15], Pieter Wesseling[16,17], Dolores H. López Terrada[18], Andreas von Deimling[19,20], Christian P. Kratz[21], Ian A. Cree[22], and Rita Alaggio[9]

ABSTRACT Pediatric tumors are uncommon, yet are the leading cause of cancer-related death in childhood. Tumor types, molecular characteristics, and pathogenesis are unique, often originating from a single genetic driver event. The specific diagnostic challenges of childhood tumors led to the development of the first World Health Organization (WHO) Classification of Pediatric Tumors. The classification is rooted in a multilayered approach, incorporating morphology, IHC, and molecular characteristics. The volume is organized according to organ sites and provides a single, state-of-the-art compendium of pediatric tumor types. A special emphasis was placed on "blastomas," which variably recapitulate the morphologic maturation of organs from which they originate.

Significance: In this review, we briefly summarize the main features and updates of each chapter of the inaugural WHO Classification of Pediatric Tumors, including its rapid transition from a mostly microscopic into a molecularly driven classification systematically taking recent discoveries in pediatric tumor genomics into account.

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Inaugural WHO Classification of Pediatric Tumors

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Li-Fraumeni syndrome*

WILMS TUMOR
- Beckwith-Wiedemann spectrum*
- Bohring-Opitz syndrome
- Mosaic variegated aneuploidy
- Mulibrey nanism
- Perlman syndrome
- Simpson-Golabi Behmel syndrome
- TRIM28 congenital predisposition to WT
- Trisomy 18
- *WT1*-associated syndromes*

ENDOCRINE TUMORS
- Hereditary pheochromocytoma/paraganglioma syndrome*
- Hyperparathyroidism jaw tumor syndrome
- Multiple endocrine neoplasia type 1
- Multiple endocrine neoplasia type 2
- Multiple endocrine neoplasia type 4
- Von Hippel-Lindau syndrome*

HEMATOPOIETIC MALIGNANCIES
- *ANKRD26*-related thrombocytopenia and myeloid malignancies*
- Ataxia telangiectasia
- Bloom syndrome
- *CEBPA*-associated familial AML*
- Congenital neutropenia*
- Down syndrome*
- Dyskeratosis congenita*
- *ETV6* susceptibility to ALL*
- Fanconi anemia*
- *GATA2*-deficiency*
- *IKZF1* susceptibility to ALL
- MIRAGE Syndrome*
- Nijmegen breakage syndrome
- Other immunodeficiency syndromes
- *PAX5* susceptibility to ALL*
- Ring chromosome 21
- Robertsonian translocation 15;21
- *RUNX1* familial platelet disorder with associated myeloid malignancies*
- *SAMD9L* ataxia-pancytopenia (ATXPC) syndrome*
- Shwachman-Diamond syndrome*

Constitutional mismatch repair deficiency*

GASTROINTESTINAL TUMORS
- *APC*-associated polyposis syndromes*
- Lynch syndrome*
- *MUTYH*-associated polyposis
- Peutz-Jeghers syndrome

NEURAL TUMORS
- *ALK*-related neuroblastic tumor susceptibility
- Congenital central hypoventilation syndrome
- *ELP1* medulloblastoma syndrome*
- Gorlin syndrome*
- *GRP161* medulloblastoma syndrome
- Neurofibromatosis type 1*
- Neurofibromatosis type 2*
- Retinoblastoma predisposition syndrome*
- Rhabdoid tumor predisposition 1*
- Rhabdoid tumor predisposition 2*
- Schwannomatosis
- Tuberous sclerosis*

OTHERS
- *BAP1* tumor predisposition syndrome*
- *BRCA1/2*-associated hereditary breast and ovarian cancer syndrome
- Carney complex
- *DICER1* syndrome*
- Enchondromatosis
- Hereditary leiomyomatosis and renal cell cancer
- L-2-hydroxyglutaric aciduria
- Multiple osteochondromas
- NKX2-1 syndrome
- Ornithin transcarbamylase deficiency
- *POLE* deficiency
- *PTEN* hamartoma tumor syndrome
- Rasopathies*
- Rubinstein-Taybi syndrome
- Schinze-Giedion syndromel
- Sotos syndrome
- T (Brachyury) gene familial chordoma
- Tyrosinemia Type 1
- Weaver syndrome
- Werner syndrome
- Xeroderma pigmentosum*

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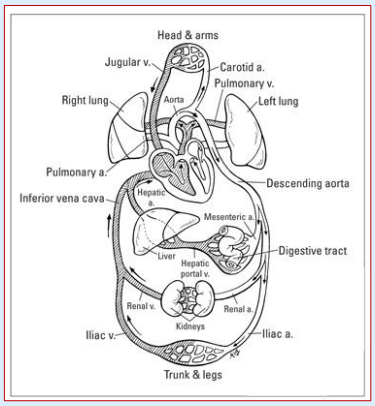
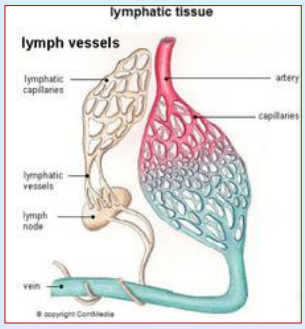
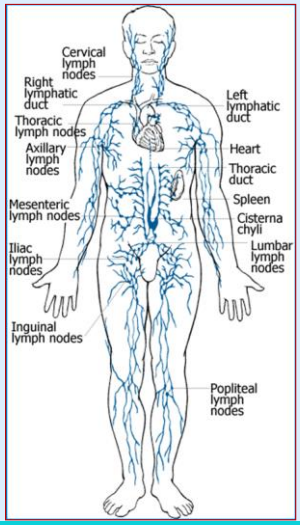
TWO Circulatory Systems – Blood & Lymphatic

188







http://www.dummies.com/education/science/biology/the-path-of-blood-through-the-human-body http://www.gorhams.dk/html/the_lymphatic_system.htm

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Lymphatic Organs vs Region

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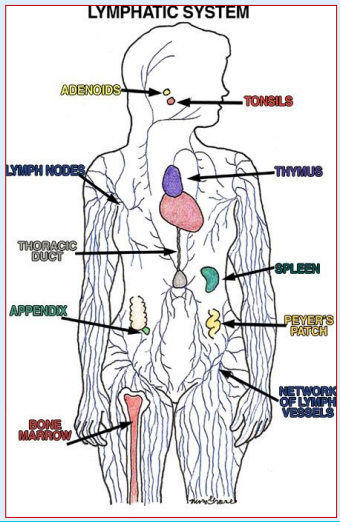

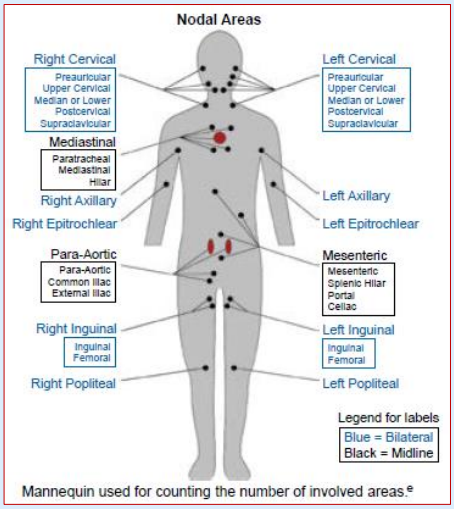

http://commonsensehealth.com

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WHO Classification of Hematolymphoid Tumors, 5th ed

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The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Lymphoid Neoplasms

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Virus-Associated Lymphoid Neoplasms

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Infectious Agents Associated with the Development of Lymphoid Malignancies	
Infectious Agent	**Lymphoid Malignancy**
Epstein-Barr virus	Burkitt's lymphoma Post–organ transplant lymphoma Primary CNS diffuse large B cell lymphoma Hodgkin's disease Extranodal NK/T cell lymphoma, nasal type
HTLV-I	Adult T cell leukemia/lymphoma
HIV	Diffuse large B cell lymphoma Burkitt's lymphoma
Hepatitis C virus	Lymphoplasmacytic lymphoma
Helicobacter pylori	Gastric MALT lymphoma
HHV 8	Primary effusion lymphoma Multicentric Castleman's disease

Harrison's Principles of Internal Medicine, 17th Edition

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"Overlap Lymphoid Syndromes" – Number of Primaries

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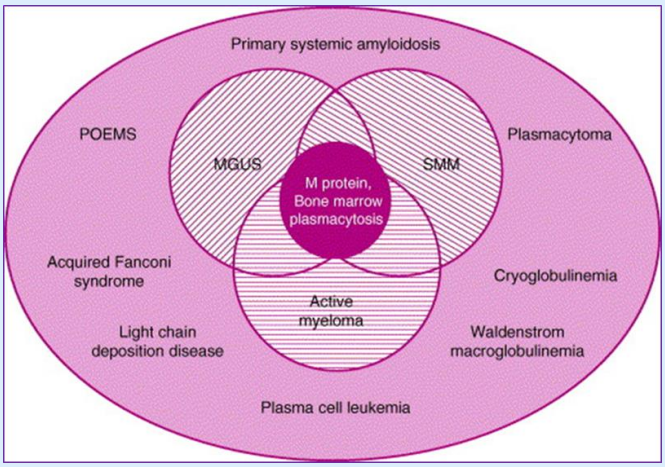

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Coding Primary Site

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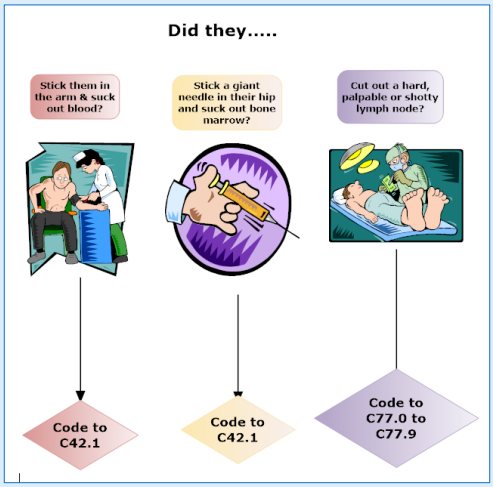

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Diagnostic Confirmation for Lymphoid Neoplasms

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Code 5: Positive laboratory test/marker study
Assign code 5 when the diagnosis of cancer is based on laboratory tests, tumor marker studies, genetics or immunophenotyping that are diagnostic for that specific cancer. Laboratory tests are listed under Definitive Diagnostic Methods in the Hematopoietic Database. Do not assign code 5 when there is histologic confirmation (See code 1).

Example 1: CT scan consistent with plasma cell myeloma (9732/3). Twenty-four-hour urine protein elevated with the presence of Bence-Jones kappa. Assign code 5 because the diagnosis is based on the positive Bence-Jones and there is no histologic confirmation in this case. Bence-Jones protein is a lab test listed in the Heme DB as one of the definitive diagnostic methods for plasma cell myeloma.

Note: Do not use this code when a peripheral blood smear is done (which qualifies for a code 1) or a peripheral blood smear followed by flow cytometry (which qualifies for a code 3). Flow cytometry studies are normally done based on an abnormal peripheral blood smear. If unable to find documentation that a peripheral blood smear was done first, assume that it was and code 3

DX CONFIRMATION = 5 CAN ONLY BE USED IN PLASMA CELL MYELOMA (9732/3)

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Molecular Genetics and Tumor Markers for Lymphoid Neoplasms

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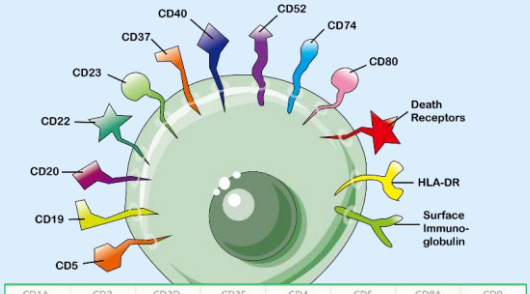

CD1A	CD2	CD3D	CD3E	CD4	CD5	CD8A	CD9
CD10	CD11A	CD11B	CD11C	CD13	CD14	CD15	CD16A
CD16B	CD19	CD22	CD24	CD25	CD27	CD28	CD29
CD31	CD32	CD33	CD34	CD38	CD40	CD41A	CD44
CD45	CD45RO	CD46	CD47	CD48	CD51/CD61	CD54	CD56
CD59	CD62E	CD62L	CD62P	CD64	CD69	CD73	CD80
CD83	CD85J	CD86	CD90	CD95	CD96	CD99	CD105
CD106	CD117	CD123	CD127	CD138	CD144	CD152	CD154
CD158Z	CD161	CD178	CD180	CD184	CD193	CD197	CD200
CD200R1	CD223	CD226	CD243	CD253	CD272	CD274	CD276
CD278	CD279	CD281	CD282	CD283	CD284	CD288	CD289
CD300E	CD319	CD338	CD357				

CD	Cell type
CD3	Pan T cell marker
CD4	T helper/inducer cell
CD5	Immature T cells; T-cell-ALL; B cell chronic lymphocytic leukemia/ small lymphocytic lymphoma (CLL/SLL); Mantle cell lymphoma
CD8	T suppressor/ cytotoxic cell
CD10	Acute lymphoblastic leukemia: CALLA antigen of early precursor B- and pre-B cell ALL; Follicular lymphoma
CD11c	Monocytes; Histiocytes; hairy cell leukemia
CD20	Mature B cell marker except plasma cells; B cell lymphomas; Lymphocyte predominant Hodgkin lymphoma (lympho-histocytic Red-Sternberg cell variant, aka L&H cells, popcorn cells)
CD25	Hairy cell leukemia
CD15, CD30	Hodgkin lymphoma: Classic Reed-Sternberg cells, Lacunar cells of nodular sclerosis type CD30-positive cells are seen with anaplastic large cell lymphoma
CD33	Myeloid progenitor cells and monocytes; acute myelogenous leukemia
CD41	Megakaryocytes: Acute megakaryocytic leukemia
CD55	Decay accelerating factor (DAF): loss is seen with paroxysmal nocturnal hemoglobinuria

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Molecular Genetics and Tumor Markers for Lymphoid Neoplasms

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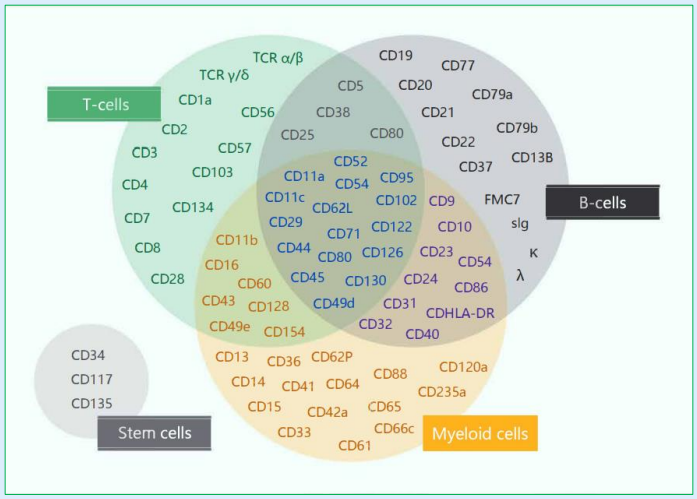

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Staging Lymphoid Neoplasms

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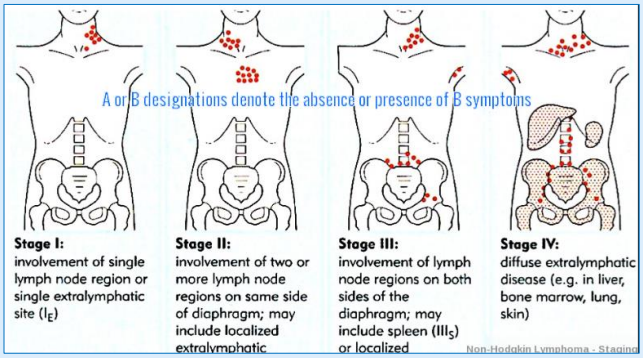
- Hodgkin Lymphoma
- Non-Hodgkin Lymphoma
- Extra-Nodal lymphoma
- Plasma Cell Neoplasms
- CLL/SLL
- ALL



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PROBLEMS with Staging and SSDIs for Lymphomas

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- AJCC and EOD Schema ID are Primarily Designed to be compatible with the AJCC TNM Staging Criteria.
- AJCC TNM Staging is designed for Solid Tumors – not Lymphoma, Leukemia, Plasma Cell Myeloma
- There are a few POORLY Designed Schema for Mycosis Fungoides, Plasma Cell Myeloma, and Hematologic Malignancies – only of lymph nodes or blood/marrow – not extra-lymphatic/marrow sites
- Therefore, they are primarily organized by solid organ primary site NOT histology-based malignancies
- Lymphoid and Myeloid Neoplasms are ALL organized by Histology
- Extra-Nodal Lymphomas (UNFORTUNATELY) are still assigned to the solid organ schema ID
- Therefore, the Grade, Staging, SSDIs and Surgery are all Tied to the Solid Organ Requirements
- Why is this a problem?
- When you have a lymphoid or myeloid malignancy of a solid organ – the SSDIs do not apply at all.
  - Lymphoma of H&N asks for H&N SSDIs – none apply to lymphoma/leukemia
  - Lymphoma of Tonsil asks for Nasopharynx SSDIs
  - Lymphoma of Brain – asks for IDH and Brain Markers or Benign/Borderline Tumor Status
  - Lymphoma of GI Tract asks for GE Junction, Tumor Epicenter, CEA, MSI, KRAS – none apply
- You CANNOT Code Lymphoid/Myeloid SSDIs when extra-nodal or extra-marrow

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Blood & Marrow Stem Cell Transplant Procedures

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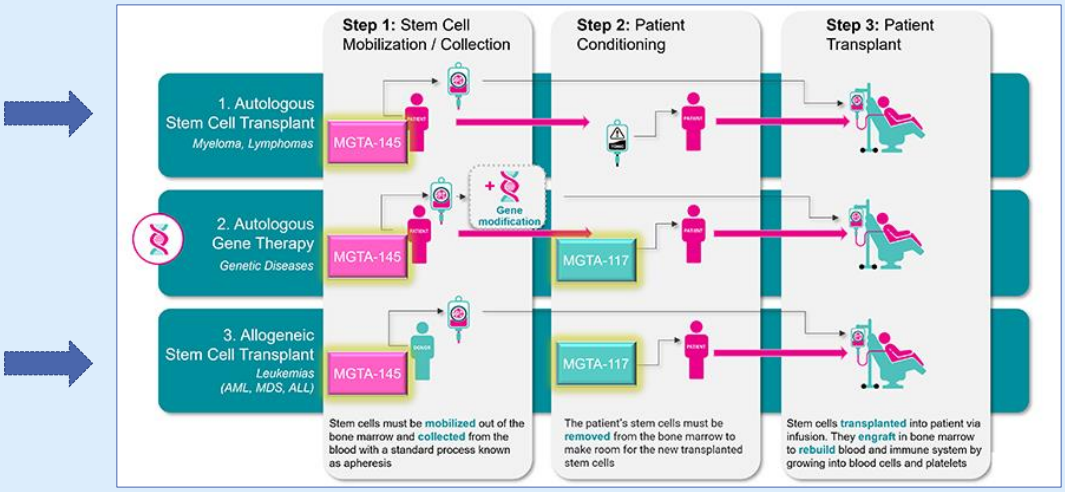

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Questions

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