Registry Accomplishments
by Katie Dahlquist

Annual Calls for Data
This past fall, the Texas Cancer Registry (TCR) completed its annual calls for data, submitting 2,209,563 Texas resident cancer cases diagnosed from 1995-2016 to the Centers for Disease Control and Prevention (CDC) National Program of Cancer Registries (NPCR) and the North American Association of Central Cancer Registries (NAACCR). We anticipate once again achieving NAACCR Gold Certification and being recognized as a Registry of Distinction by the CDC. Official evaluation results from both organizations should be available this summer. See the Completeness by Region graphic on page 2 for estimated completeness at the time of data submission.

This important work would not be possible without the hard work and dedication of our Texas Cancer Reporters. The TCR thanks you for your contributions to cancer prevention and control, to the lives of cancer patients and their families, and to the health of all Texans.

TCR Statewide Training

TCR is excited to sponsor the 2019 Statewide Training. Presented by Denise Harrison, LLC, this two-day training is for intermediate to advanced level reporters who are ready to increase their abstracting and coding skills and to share their new knowledge with colleagues.

To ensure that as many facilities as possible are represented, facilities can designate one person as a primary attendee. Other staff from the facility can register but will placed on a wait list.

For more information, visit the TCR Training page: https://www.dshs.texas.gov/tdcs/training/tdcs_trainings.aspx.

Contents
Registry Accomplishments .......... 1
TCR Statewide Training ............... 1
Epidemiology Corner .................. 2
Timely Reporting Calendar .......... 4
TCR Data Products .................... 5
Training Corner ...................... 5
New TCR Staff ........................ 6

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Colorectal cancer develops in the colon and/or rectum. It is the third most commonly diagnosed cancer in both Texas men and women, representing 9.2% of all cancers diagnosed in 2016. Colorectal cancer is also the second leading cause of cancer death in Texas men and third leading cause of cancer death in Texas women, representing 9.6% of all cancer deaths in 2016. The TCR estimates that 11,533 Texans will be diagnosed with colorectal cancer and 4,242 Texans will die from colorectal cancer in 2019.

**Risk Factors**

Approximately half of all colorectal cancer cases are attributable to modifiable risk factors that include excess body weight, physical inactivity, tobacco use, heavy alcohol use, and diets high in processed and red meat and low in fiber, fruit, and vegetables. Other risk factors include age, a personal or family history of colorectal cancer, a personal history of inflammatory bowel disease such as Crohn’s disease or ulcerative colitis, type 2 diabetes, certain inherited conditions such as Lynch syndrome and familial adenomatous polyposis, and Ashkenazi Jewish or African ancestry.

**Impact of Screening and Early Detection**

Colorectal cancer is one of three cancers with widespread screening programs in the United States. Screening is used to check for noncancerous growths in the colon and rectum, called polyps, that can later develop into cancer. Screening can also detect early stages of the disease when it is more easily treated. If colorectal cancer is found early, the survival rate is high. The five-year relative survival for patients diagnosed at the localized stage is 88.2% of patients, compared to 16.5% once the cancer has spread to distant organs or

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**FOR MORE INFORMATION:**

See the TCR Completeness Dashboard: goo.gl/7bxGx1

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tissues.\textsuperscript{1} This statistic represents the percentage of cancer patients who have survived for five years after diagnosis compared to people without cancer.

The U.S. Preventive Services Task Force recommends screening for colorectal cancer for all adults aged 50-75 years.\textsuperscript{2} In 2016, 60.1\% of Texas adults aged 50-75 years were up-to-date with colorectal cancer screening, which is lower than the national average of 67.7\%.\textsuperscript{3} In Texas, the percentage of eligible persons who are up-to-date with colorectal cancer screening varies with sex, race/ethnicity, insurance status, and age. In 2016, screening rates were higher in women than men (62.6\% vs. 57.3\%), Non-Hispanic whites (68.6\%) compared to Non-Hispanic blacks (63.7\%) and Hispanics (40.3\%), insured versus uninsured persons (64.8\% vs. 30.6\%), and among those aged 65-75 years (76.0\%) than in those aged 50-64 years (53.0\%).\textsuperscript{3} Screening rates are particularly low in South Texas and the Texas-Mexico border counties, with 7 counties in this region among those with the lowest screening rates in the country.\textsuperscript{4,5}

**Colorectal Incidence in Texas**

The incidence rate of colorectal cancer is higher in men than women (44.9 new cases per 100,000 per year during 2012-2016 in Texas males; 31.6 in Texas females). Incidence rates also increase with age, and vary by race/ethnicity. In Texas, rates are highest among non-Hispanic black men (56.4), followed by Hispanic men (46.0), and non-Hispanic white men (44.5).\textsuperscript{1}

Since the introduction of screening programs, colorectal cancer rates have been declining nationwide.\textsuperscript{6} In Texas, the most recent 10-year data mirror national trends; incidence rates decreased by 2.2\% per year between 2007 and 2016, with an overall decline of 20\%.\textsuperscript{1}

Although incidence rates decreased most among non-Hispanic blacks (3.3\% per year) compared to other groups, rates are still the highest among this group.\textsuperscript{1} Incidence rates declined fastest in adults aged 65 years and over (by 3.7\% per year).\textsuperscript{1}

**Colorectal Cancer in Younger Adults**

While colorectal cancer is less common in younger adults aged 20-49 years, rates in this age group significantly increased by 1.4\% per year between 2007 and 2016.\textsuperscript{1} This increase occurred primarily among non-Hispanic whites, who also have the highest current incidence rate, although rates in Hispanics also tended to increase.\textsuperscript{1} A smaller proportion of cases are diagnosed at the localized stage (when it is more easily treated) in younger adults aged 20-49 years (25.8\%) compared to those aged 50-64 years (31.6\%) or 65 years and older (33.7\%).\textsuperscript{1} Colorectal cancer is now the leading cancer diagnosis and leading cause of cancer death in Texas males aged 20-49 years.\textsuperscript{1} Increased incidence of colorectal cancer in younger adults, a trend that is also seen nationwide, may be related to increased rates of obesity, inactivity, and unhealthy diets with low fiber consumption, but more research is needed.\textsuperscript{6}
Increasing colorectal cancer rates in younger adults has led some organizations, including the American Cancer Society, to recommend colorectal cancer screening begin at age 45 years. Encouraging both increased screening and healthy lifestyles are ways in which colorectal cancer cases and deaths can be reduced. Cancer registries play a vital role in collecting, maintaining, and disseminating high quality cancer data to allow for monitoring trends over time, identifying cancer patterns, and advancing clinical, epidemiologic, and health services research designed to help reduce the burden of colorectal cancer.

References:

Timely Reporting Calendar

The TCR recently released a revised reporting calendar for 2018 cancer cases. We recommend all healthcare facilities submit cases on a weekly basis. At minimum, healthcare facilities are required to submit cases monthly, regardless of caseload.

Contact your local regional Texas Cancer Registry office for additional reporting information. Visit the TCR website for contact information: https://www.dshs.texas.gov/tcr/contact.aspx.
TCR Data Products

TCR recently published several new reports and data tables on our website. If you would like to be notified when new TCR products are available, sign up for email updates.

Site-Specific Tables, Report and Summary
- Liver and Intrahepatic Bile Duct Cancer in Texas

Data Visualization
- TCR Web Query Tool, 1996-2016

Supporting Documents
- Texas Cancer Registry Data Use
- TCR Data Dictionary
- 2018 Texas Cancer Registry Annual Report
- Texas Cancer Fast Stats 2018

Datasets and Data Tables
- Limited-Use Data, 1995-2016
- Estimated Cancer Cases and Deaths, 2019
- Cancer Incidence and Mortality, 2012-2016
- Cause-Specific Survival for Malignant Cancers Diagnosed 2012-2016
- Childhood and Adolescent Cancer, 2007-2016
- Adolescent and Young Adult Cancer, 2012-2016
- Texas Prevalence Counts as of January 1, 2016

Look for new data products, including web reports on screening-amenable cancers, in the coming months.

Training Corner

by TCR Training Team

The TCR is excited to announce our first online educational platform!

The Fundamental Learning Collaborative for the Cancer Surveillance Community, or FLccSC (pronounced “flossie”), was developed by the Florida Cancer Data System and the South Carolina Central Cancer Registry. This web-based tool provides learning courses, modules and quizzes for all cancer reporters regardless of expertise. FLccSC not only delivers content created by the TCR Training Team, but also gives participants access to modules designed by other central registries. For example, any student can access TCR’s course “2018 Changes 1.0” and then review the Florida Cancer Data System’s course on abstracting and coding 2018 lung cancer cases.

If you haven’t signed up, do so now! You can register at http://txs.fcdslms.med.miami.edu/.

SEER Training

New modules have been added to the SEER Training Website. Texas reporters might be interested in the following topics:

- ICD-10-CM provides information on neoplasm codes from the ICD-10-CM coding scheme.
- Summary Stage 2018 (SS2018) outlines the concepts of staging and assists in assigning the appropriate summary stage codes while using the staging manual.
• **Ovarian Cancer** is now available as a Site-Specific Module.

You can always view a list of completed SEER Training updates on the updates section of the SEER Training Website.

**Hematopoietic and Lymphoid Neoplasm Database and Manual**

**Did you know?**
- The search function now searches all fields.
- Glossary definitions are available for certain terms by clicking on links. The Glossary for Registrars is available at https://seer.cancer.gov/seertools/glossary.

**2019 Revisions**
- Histologies fixed in Module 6 and Module 7.

**2018 Revisions**
- Rule clarifications and adjustments have been made.
- Typographical errors in both the manual and database have been corrected.
- Grade is no longer applicable for cases diagnosed in 2018 and later. Grade is still required for cases diagnosed prior to 2018.
- Non-reportable terms were removed from Appendix F in the manual and added to the database.
- The glossary was removed from the manual and created as a new glossary database.
- Several sections are no longer relevant and have been deleted from the manual:
  - *Appendix E: Obsolete Hematopoietic Histology Codes*—This section covered the neoplasms that were made obsolete as of 1/1/2010 and forward. This information is in the database. In January 2015, all cases that included one of these codes for 1/1/2010 and forward were converted to the current applicable code.
  - *Obsolete Terms as Defined in ICD-O Hematopoietic and Lymphoid Neoplasms* (part of Appendix A)—The obsolete terms are part of the Hematopoietic database.
  - *Appendix D: New Histology Terms and Codes Hematopoietic and Lymphoid Neoplasms*—These were the new histology codes as of 1/1/2010. These are no longer new.

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**Certified Tumor Registrar Exam, Preparation and Training**

There are two more opportunities to take the CTR Exam this year!
- June 21–July 23
  - Application deadline: May 31, 2019
- October 11–November 2
  - Application deadline: September 13, 2019

The TCR is proud to sponsor the NAACCR CTR Exam Preparation and Review Webinar Series, which can help you prepare for the 2019 exam.

The next session of CTR prep courses beings on April 30. For registration information, visit the TCR website.

**NAACCR Trainings**

The TCR will broadcast these upcoming NAACCR Webinars in multiple locations throughout Texas.
- May 4 – Collecting Cancer Data: Neuroendocrine Tumors
- June 6 – Collecting Cancer Data: Ovary
- July 11 – Hospital Cancer Registry Operations
- August 1 – Solid Tumor Rules
- September 5 – Coding Pitfalls

For more information, visit the NAACCR Webinar section of the TCR website.
2018 Solid Tumor Rules

For cases diagnosed in 2018 and later, the 2018 Solid Tumor Rules will be used for coding. You will still use the 2007 MPH Coding Rules for cases diagnosed in 2007–2017. To help you understand coding changes, TCR staff have put together the following tips and reminders for using the 2018 Solid Tumor Rules.

Coding Histology

- When using 2007 MPH Coding Rules, you should code the histology from the most representative specimen.
- For all sites except breast and central nervous system (CNS), 2018 Solid Tumor Rules instruct you to code the most specific histology from the biopsy or resection. When there is a discrepancy between the biopsy and resection (e.g., two distinctly different histologies or different rows), code the histology from the most representative specimen (the greater amount of tumor).

Coding Tips

- Nodular Melanoma 8721/3 (C44._) are lumpy and usually blue-back in color. A key trait is that they may grow faster and spread downwards.\(^1,2\)

- Mucinous Adenocarcinoma 8480/3 (C18-C20) is an adenocarcinoma containing extracellular mucin comprising more than 50% of the tumor. Colloid is the same as mucinous; however, mucin-producing and mucin-secreting are not the same as mucinous.\(^1\) 98% of colon cancers are adenocarcinoma and adenocarcinoma subtypes; 8480 is a subtype/variant.

- Rule H6 codes high-grade, invasive and malignant pseudomyxoma peritonei to 8480.\(^2\)

Breast

- NST (No Special Type), mammary carcinoma NST, and carcinoma NST are the new terms for duct or ductal carcinoma.
- Mammary carcinoma is the same as carcinoma NST/duct carcinoma not otherwise specified (NOS) 8500. It will no longer be coded as carcinoma NOS 8010.
- DCIS/Carcinoma NST in situ has a major classification change.
- Subtypes/variant, architecture, pattern, and features are not coded. The majority of in situ tumors will be coded to DCIS 8500/2.

Colon, Rectosigmoid and Rectum

- Rectum and rectosigmoid tumors are now included with the Colon Rules.
- There are new multiple primary rules which address anastomotic recurrence.
- Neuroendocrine tumors (formerly carcinoid) arising in the appendix are reportable for cases diagnosed in 2015 and later.
- Rule clarification: Pseudomyxoma peritonei now has a two-tiered system that classifies pseudomyxoma peritonei as either high-grade (malignant /3) or low-grade (non-malignant /0).
- There are dysplasias that have been assigned an in situ behavior code /2 in WHO and the ICD-O Update. Despite becoming a /2, they are not reportable in the US (but are in Canada).
- Disregard polyps when coding histology. For example, adenocarcinoma in an adenomatous polyp is coded as adenocarcinoma 8140. For the purposes of determining multiple primaries, tumors coded as adenocarcinoma in a polyp for pre-2018 cases should be treated as adenocarcinoma 8140.

Head and Neck

- Two bone sites—mandible C410 and maxilla C411—have been added to the Head and Neck Rules.
- External ear C442 has been added to the Head and Neck Rules.

\(^1\) 2017 MPH Coding Rules
\(^2\) 2018 Solid Tumor Rules

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• Basal cell carcinoma and all non-malignant neoplasms are excluded.
• Autonomic nervous system C479 has been added as a primary site for those paragangliomas reported as malignant.

Kidney
• New histology terms and codes were included and are identified by an asterisk:
  • Histologies with terms that indicate they are hereditary (hereditary leiomyomatosis and renal cell carcinoma syndrome–associated RCC 8311)
  • Histologies with genetic anomalies (succinate dehydrogenase–deficient RCC)
• Some histologies are rare and are not listed in the tables; refer to ICD-O and all updates.
• Renal cell spindle cell carcinoma 8318 is no longer a recommended term.

Lung
• New and changed ICD-O histology codes have been added to Table 3 and are identified by an asterisk. Some of those changes include:
  • In situ and minimally invasive terms and codes
  • Terms assigned a new histology code
  • Histology codes assigned a different preferred term (18 codes with new preferred terms)
• The following new terms and codes have been added:
  • Mucinous carcinoma/adenocarcinoma
    • 8253/3 when behavior unknown/not documented or invasive
    • 8257/3 when microinvasive or minimally invasive
    • 8253/2 when preinvasive or in situ
  • Non-mucinous carcinoma/adenocarcinoma
    • 8256/3 when microinvasive or minimally invasive
    • 8250/2 when preinvasive or in situ

Malignant CNS & Peripheral Nerves
• Diffuse gliomas, medulloblastomas and other embryonal tumors were restructured. New entities that are defined by both histology and molecular features are incorporated, including: glioblastoma, IDH-wildtype and glioblastoma, IDH-mutant; diffuse midline glioma, H3 K27M-mutant, RELA fusion-positive ependymoma, medulloblastoma, WNT-activated and medulloblastoma, SHH-activated, and embryonal tumor with multilayered rosettes, C19MC-altered.
• Glioma NOS is an umbrella term for all gliomas and astrocytomas and is not recommended because diagnostic methodology is able to determine a more specific diagnosis.
• GBM subsequent to an astrocytic or glial tumor is a multiple primary.

Non-Malignant CNS & Peripheral Nerves
• The following meningiomas are reportable: intraosseous, cavernous sinus and sphenoid wing.
• Multiple cerebral meningiomas are a single primary.
• Multiple brain tumors (same histology) are a single primary.
• Bilateral optic nerve gliomas/pilocytic astrocytomas are a single primary.
• Laterality does not determine multiple primaries.
• Timing does not determine multiple primaries.
• The brain (C710–C719) is a single primary site.
• Neurofibromatosis NOS, Neurofibromatosis 1 (NF1), Neurofibromatosis 2 (NF2), and schwannomatosis are genetic syndromes and not reportable neoplasms.

Other Sites
• For cases diagnosed 2007–2017, the Other Sites Rules cover rectosigmoid, rectum and all sites not included in the site-specific rules.
• For cases diagnosed in 2018 and later, the following sites are no longer included in the Other Sites Rules:
  • Rectosigmoid C199
  • Rectum C209
  • Peripheral Nerves and Autonomic Nervous System C470–C479

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Cancer Registrar Q&A

A kidney biopsy reported a single tumor as alveolar rhabdomyosarcoma and spindle cell rhabdomyosarcoma. Yet, the surgical report states rhabdomyosarcoma, NOS. How is this coded?

For cases diagnosed January 1, 2018, when there is a discrepancy between the biopsy and resection in regards to the histology we “code the most specific pathology/tissue regardless of whether it is from a resection or biopsy.” This is usually referring to the subtype or variant.

We follow the 2018 Solid Tumor Rules for a Single Tumor.

If the diagnosis is alveolar rhabdomyosarcoma 8920 and spindle cell rhabdomyosarcoma 8912 (biopsy showing the more specific histology), per Rule H2, we would code to rhabdomyosarcoma, nos.

This is a change from the 2007 MPH Coding Rules in which we would “code the histology from the most representative specimen” (in most cases the surgical procedure) and Rule H7 which states to code the numerically higher ICD-O-3 code for two specific histologies (8920) if they are not renal cell types. Two or more specific renal types are assigned to code 8255 prior to 01/01/2018.

If a patient is diagnosed with ductal carcinoma, which histology would you use—8500 or 8521?

According to the 2007 MPH Coding Rules, the histology code is 8500 (ductal carcinoma, NOS). This is due to the lack of specific features that can be used to better classify the tumor.

Tumors of the duct are frequently miscoded and assigned the histology code 8521, ductular carcinoma. Though ductular carcinomas do exist, these malignancies are rarely found and applied to the breast. Ductular carcinoma is more commonly seen in the pancreas, biliary ducts or prostate. Ductular is not equivalent to duct or ductal.

What is the histology code for an infiltrating ductal carcinoma, micropapillary type, grade 3 breast cancer?

For cases diagnosed on January 1, 2018, and late, we would use 2018 Solid Tumor Rules which states, “Subtypes/variant, architecture, pattern, and features ARE NOT CODED”. Therefore, infiltrating ductal carcinoma, micropapillary type would be coded infiltrating ductal carcinoma 8500.

This is a change from the 2007 MPH Coding Rules in which it would be coded duct micropapillary carcinoma, 8507/3.

What is the histology code for a patient diagnosed with an Infiltrating duct combined with a mucinous histology?

The 2007 MPH Coding Rules and 2018 Solid Tumor Rules state that the correct code for an infiltrating duct combined with a mucinous is 8523/3.

For diagnosis dates January 1, 2018, and later, refer to the 2018 Solid Tumor Rules Coding Multiple Histologies in a Single Tumor. Use Table 2: Histology Combination Codes only when instructed to by the
Histology Coding Rules, Rule H17. The combination codes are used for single tumors or multiple tumors abstracted as a single primary. It is not to be used if the histologies have different behaviors, or if one is a subtype/variant, or described as a differentiation or feature.

For diagnosis dates prior to this date, apply the 2007 MPH Coding Rules. Use Table 3 when instructed to by the Multiple Primary and Histology Rules, H17 (duct mixed with other types or carcinoma). Compare the terms in the diagnosis to the terms in Columns 1 and 2. If the terms match the diagnosis, code the histology to the ICC-O code in Column 4.

How would you code the histology of a breast tumor that includes focal features?

Per Rule H14 in the 2018 Solid Tumor Rules for breast, we would ignore the focal component and assume the other portion comprises the majority of that histology. When a histology is “focal” it indicates that the tumor contains less than 50%, or the minority, of this histology. For example, a pathology report shows glycogen-rich clear cell carcinoma, 8315 with a focal feature of clear cell carcinoma, 8310. We would code the majority, 8315.

There are similar sounding terms—focal, focus and foci—that can easily be confused; however, they have different meanings that affect how multiple tumors are counted.

Focal means limited to one specific area. This can be either microscopic (seen through a microscope) or macroscopic (seen with the naked eye).

Focus is a pathologic term describing cells that can be seen only microscopically. The cells stand out from surrounding tissue based on their appearance, special stains, or other testing. Foci is the plural of focus and implies only microscopic visualization of the tumor cells.

FOR MORE INFORMATION:

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New TCR Staff

Minh Doan, MPH, joined the Northeast Regional Operations Group in November 2018 as a Program Specialist. She has a Master of Public Health from the UT School of Public Health and a Bachelor of Science in Biological Sciences from the University of Nebraska-Lincoln. She is also a Certified Nursing Assistant and will be CTR eligible after one year with the registry.

Keisha Musonda, MPH, joined the Epidemiology Group in December 2018 as an Epidemiologist. She has more than nine years of experience working in epidemiology, disease surveillance, and public health. She earned a Master of Public Health, with a concentration in epidemiology, from the University of Arizona and a Bachelor of Science in biology and chemistry from Howard University. Keisha previously worked as an epidemiologist for the Inter Tribal Council of Arizona and as a research scientist for the University of Washington.

Alejandra Martinez, RHIT, joined the Southwest Registry Operations Group in January 2019 as a Public Health and Prevention Specialist. She has an associate's degree in health information technology from Texas State Technical College and received her Registered Health Information Technician (RHIT) certification in 2018. Alejandra is CTR eligible.

Adrianne Moreno, MPH, joined the Epidemiology Group in February 2019 as a Research Specialist. She has a Master of Public Health, with a concentration in Epidemiology, from UT Health Science Center, Austin and a Bachelor of Science in biology from UT Austin. Adrianne previously worked as graduate data manager at the UT Dell Medical School, where she combined, cleaned, linked, and analyzed multiple years of national vital statistics data.
The mission of the Texas Cancer Registry is to collect, maintain, and disseminate high quality cancer data that contribute towards cancer prevention and control, research, improving diagnoses, treatment, survival, and quality of life for all cancer patients.

Recognition of TCR Funding Sources

Maintaining a statewide cancer registry that meets Centers for Disease Control and Prevention (CDC) high quality data standards and North American Association of Central Cancer Registries (NAACCR) gold certification is accomplished through collaborative funding efforts.

The Texas Cancer Registry recognizes the following whose financial support is essential to accomplishing the Texas Cancer Registry mission for our State, and as the 4th largest cancer registry in the Nation.

Federal Grant Funding

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State Agency Funding

- Texas Department of State Health Services
- Texas Health and Human Services Commission
- Cancer Prevention and Research Institute of Texas

Questions regarding information in this newsletter and suggestions for future issues can be emailed to Katie Dahlquist, katie.dahlquist@dshs.texas.gov.

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