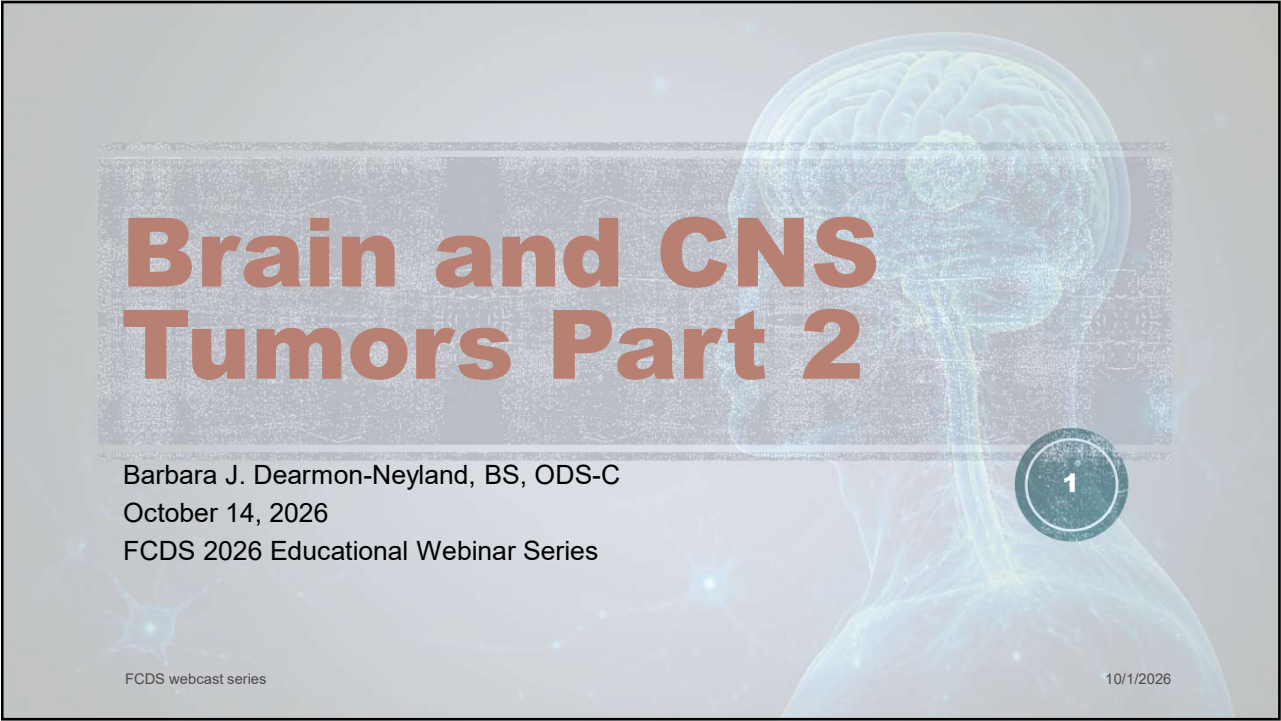


Brain and CNS Tumors Part 2

Barbara J. Dearmon-Neyland, BS, ODS-C
October 14, 2026
FCDS 2026 Educational Webinar Series

FCDS webcast series

10/1/2026



CDC & Florida DOH Attribution



“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.”



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 2024 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.



FLccSC LMS – CEU Quiz – FCDS IDEA



NCRA CEU# 2026-042
2 CEUs Awarded, meets 2 CAT A
Log in to FLccSC to take the quiz to get the certificate

FCDS webcast series

10/1/2026

3

3

Objectives

Brain and CNS Tumor Facts

Anatomy & Types of Brain Tumors

Coding Specific Data Items

Review Solid Tumor Rules

Pediatric Data Collection

FCDS webcast series

10/1/2026

4

4

Brain Tumors Are:

- **Benign** – “Benign” brain tumors are not cancer, although they often cause symptoms and will sometimes require treatment. We prefer to use the term “non-malignant” to describe brain tumors made up of noncancerous cells.
 - Behavior = 0
 - Sequence Number = 60>
 - Reportable for Cases Diagnosed 1/1/2004 and later - only
- **Malignant** – Malignant brain tumors are cancer. They generally grow faster and more aggressively than non-malignant tumors, invade other areas of the brain and spinal cord, and can be deadly.
 - Behavior = 3 and
 - Sequence Number = 00>
 - Reportable for All Cases Regardless of Diagnosis Date
- **Borderline** – Somewhere in-between having malignant potential.
 - Behavior = 1 and
 - Sequence Number = 60>
 - Reportable for Cases Diagnosed 1/1/2004 and later - only

CNS Part 2

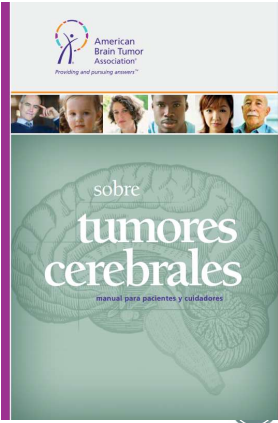
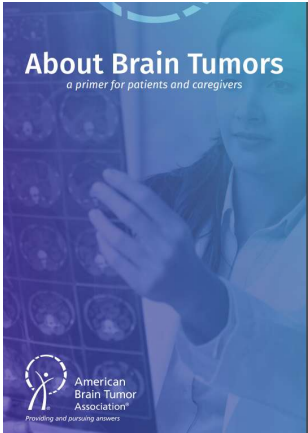
10/14/2026

5

5

Brain Tumor Characteristics

- **Patient Age**
- **Tumor Location**
- **Behavior**
- **Histologic Type**
- **WHO Grade of Primary Tumor**
- **Tumor Molecular Profile – DOCUMENT IT !!**



American Brain Tumor Association –
<http://www.abta.org/brochures>

6

Brain Tumor Dictionary

BRAIN TUMOR DICTIONARY

A Glossary of terms for Patients and Caregivers

CCG: Children's Cancer Study Group. An NCI funded clinical cooperative group organized to evaluate new treatments for pediatric patients.

CCG: the Pediatric Oncology Group (POG) and two other pediatric clinical cooperative groups have merged to form a new group -- the Children's Oncology Group (COG).

CEN: Certified Clinical Nurse.

CCOP: Community Clinical Oncology Program, a National Cancer Institute effort that allows community physicians to work with scientists conducting NCI supported clinical trials.

CCRA: Certified Clinical Research Associate.

CCRN: Critical Care Registered Nurse.

CDR: Centers for Disease Control and Prevention, Department of Health and Human Services, located in Atlanta, Georgia.

CDER: Center for Drug Evaluation and Research of the Food and Drug Administration. This office is responsible for ensuring the safety and effectiveness of drugs. An Office of Oncology Drug Products (ODP) in CDER's Office of New Drugs is responsible for the review of drug and biologic products used to diagnose, treat, and prevent cancer.

cell: The basic living unit of body tissue. It contains a nucleus surrounded by cytoplasm and is enclosed by a membrane.

CDRH: Center for Devices and Radiological Health of the Food and Drug Administration. This office helps ensure that medical devices are safe and effective and helps reduce unnecessary exposure to radiation from medical, occupational, and consumer products. Radiation emitting products include microwave ovens, televisions, medical x-ray machines, CTMRI scans, and diagnostic ultrasound among others.

cell cycle: The reproductive stages of a cell leading to cell division (mitosis).

cell differentiation: The process that young, immature, unspecialized (undifferentiated) cells undergo as they take on individual characteristics and much more mature, specialized (differentiated) form and function.

cell kinetics: The rate of cell division. The amount of time it takes for a tumor to double its dimensional size.

cell motility: The ability of a cell to move.

cell proliferation: An increase in the number of cells as a result of cell division.

cellular dysplasia: A group of cells that are not normal.

cellular immunity: Immune protection provided by the direct action of immune cells as distinct from the action of antibodies (humoral immunity).

chemopreventive: The use of chemicals to prevent cancer.

central nervous system: Pertaining to the brain, spinal nerves and spinal cord. It does not include muscles or peripheral nerves. Abbreviated CNS.

central neurocytoma: A type of brain tumor. This rare, low grade tumor typically occurs in the lateral ventricle in the region of the foramen of Monro, and occasionally extends into the third ventricle as well.

cerebellar astrocytoma: A type of brain tumor. About 80% are low grade, localized, cystic tumors, although higher grades of tumors also occur. More common in children than adults.

cerebellar glioma: A type of brain tumor. The glioma name gives to a glial tumor of the cerebellum.

cerebellar peduncle: A type of brain tumor.

cerebellum: Located just above the neck in the back of the head, the cerebellum is the second largest structure in the brain. It consists of two hemispheres or halves, is connected to the brain stem, and controls balance for walking and standing and other complex motor functions.

cerebral aqueduct: A narrow canal through the midbrain connecting the third and fourth ventricles through which cerebrospinal fluid flows. Also called the aqueduct of Sylvius.

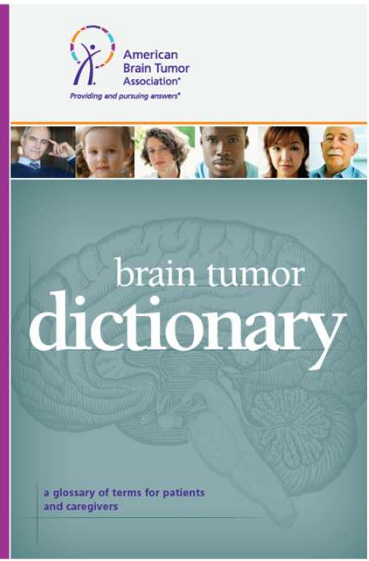
cerebral astrocytoma: A type of brain tumor. The cerebral astrocytoma is a malignant, rapid growing tumor. Eighty-five percent of cerebral astrocytomas occur in children. It is also called a PNET (primary neuroectodermal tumor) by some. Neuroblastoma more commonly occurs outside the central nervous system.

cerebrospinal fluid: A clear fluid made in the ventricular cavity of the brain that bathes the brain and spinal cord. It circulates through the ventricles and the subarachnoid space. Abbreviated CSF.

cerebrum: The largest part of the brain, the cerebrum occupies the uppermost part of the skull. It consists of two halves called hemispheres. Each half of the cerebrum is further divided into four lobes: frontal, temporal, parietal and occipital. The right side of the cerebrum generally controls the left side of the body. Also called cerebral hemisphere.

cervical: Relates to the neck.

cervicomedullary brain stem glioma: A type of brain tumor. This tumor arises in the medulla oblongata and extends into the cervical spinal cord. It is often a pilocytic or fibrillary astrocytoma.



CNS Part 2

<https://www.abta.org/brochures/>

10/14/2026

7

7

Malignant Brain Tumor Facts

FCDS webcast series

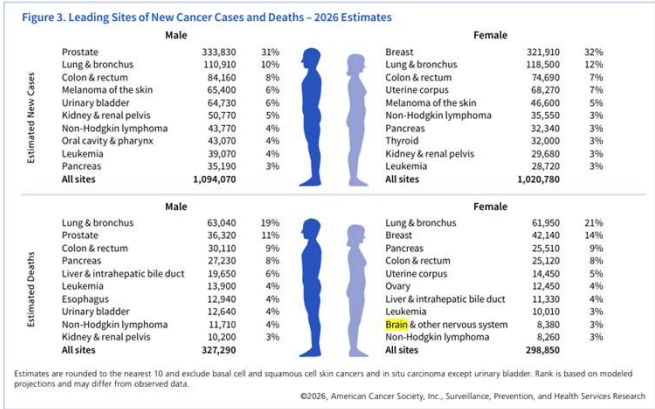


8

10/1/2026

8

American Cancer Society (ACS) Cancer Facts & Figures 2025



FCDS webcast series

10/1/2026



American Cancer Society (ACS)

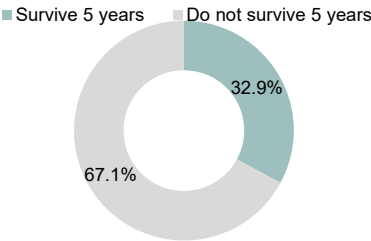
Incidence Rates by Race & Ethnicity

Age-adjusted rate per 100,000, all primary brain & other CNS tumors, 2018–2022



5-Year Survival – all Stages

Malignant brain & other CNS tumors, all stages combined, 2016–2022



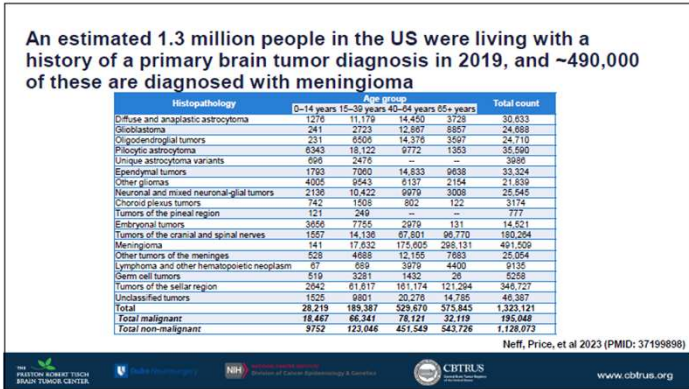
Sources: CBTRUS Statistical Report 2018–2022; NCI SEER Cancer Stat Facts, brain & other nervous system.

FCDS webcast series

10/1/2026



Central Brain Tumor Registry of the U.S. (CBTRUS) CNS Tumors

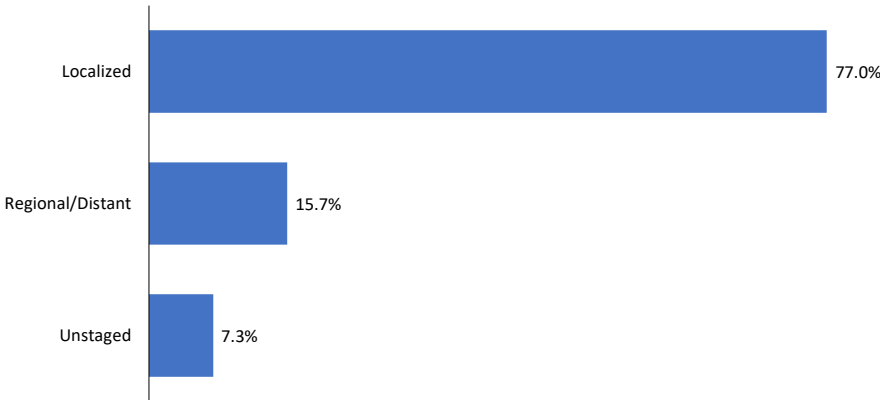


FCDS webcast series

10/1/2026

Stage Distribution (%) of New Cancer Cases, 2019-2023

Brain and Other Nervous System, Male and Female, All Ages, All Races and Ethnicities



Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; <https://www.cdc.gov/cancer/dataviz>, released in June 2026.

Cancer in Children and Adolescents (ACS)

- New cases**
 - 9,680 (ages 0-14)
 - 5,660 (ages 15-19)
- Deaths**
 - 1,090 children
 - 730 adolescents
- Incidence rates**
 - Brain is one of the most common cancers
- Mortality Trends**
- Risk Factors**

Estimated new cases and deaths, children and adolescents (ACS)

■ New cases ■ Deaths

Age Group	New cases	Deaths
Ages 0-14	9,680	1,090
Ages 15-19	5,660	730

FCDS webcast series

10/1/2026

13

National Brain Tumor Society (NBTS) Brain Tumor Facts



Brain tumors in children

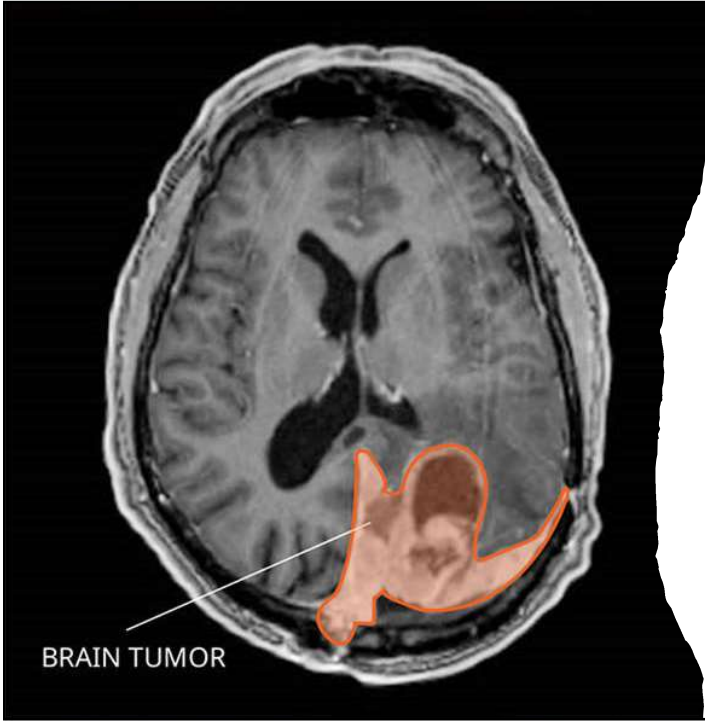
- Most commonly diagnosed solid cancer in children ages 0-19 years, as well as the leading cause of childhood cancer-related death
- Five-year relative survival rate for all primary childhood brain tumors is 83.3%
- Medulloblastomas make up the largest percentage of embryonal tumors (67.3%)
- Atypical teratoid/rhabdoid tumors (AT/RT) make up the second largest percentage of embryonal tumors (16.9%)
- Gliomas account for approximately 49.7% of tumors diagnosed in this age group
- There are more than 100 distinct types of primary brain tumors

[Source: National Brain Tumor Society, brainumor.org](https://www.brainumor.org)

CNS Part 2

10/14/2026

14

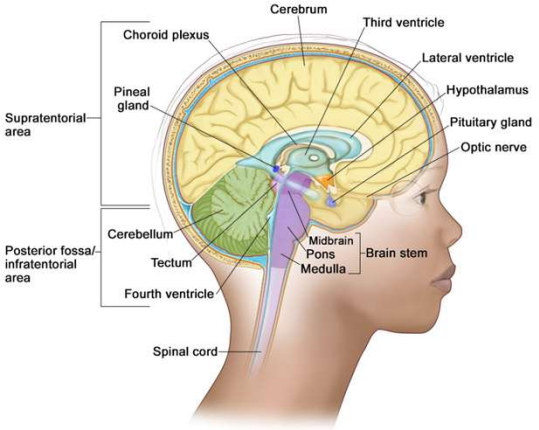


Childhood CNS Tumors

- Gliomas
- Astrocytomas
- Diffuse Intrinsic Pontine Glioma (DIPG)
- Tumors of the Pituitary
- Medulloblastoma
- Embryonal Tumors
- Nerve Sheath Tumors
- Meningiomas

<https://cbtrus.org/cbtrus-published-factsheets/>

15



Diffuse intrinsic pontine glioma (DIPG) 9385/3

- Diffuse intrinsic pontine glioma (DIPG) is a fast-growing, high-grade glioma that arises in the pons
- Common in children ages 5-10 years
- Causes genetic mutations
- Frequently diagnosed by radiology; diagnostic
- Confirmation would be 7 (imaging only)

16



National Human Genome
Research Institute



Home / About Genomics / Educational Resources / Talking Glossary of Genomic and Genetic Terms /
Genome-Wide Association Studies (GWAS)

GENOME-WIDE ASSOCIATION STUDIES (GWAS)

updated: August 26, 2026

Introduction to Genomics

What's a Genome?

Genome is a fancy word for all your DNA. From potatoes to puppies, all living organisms have their own genome. Each genome contains the information needed to build and maintain that organism throughout its life.

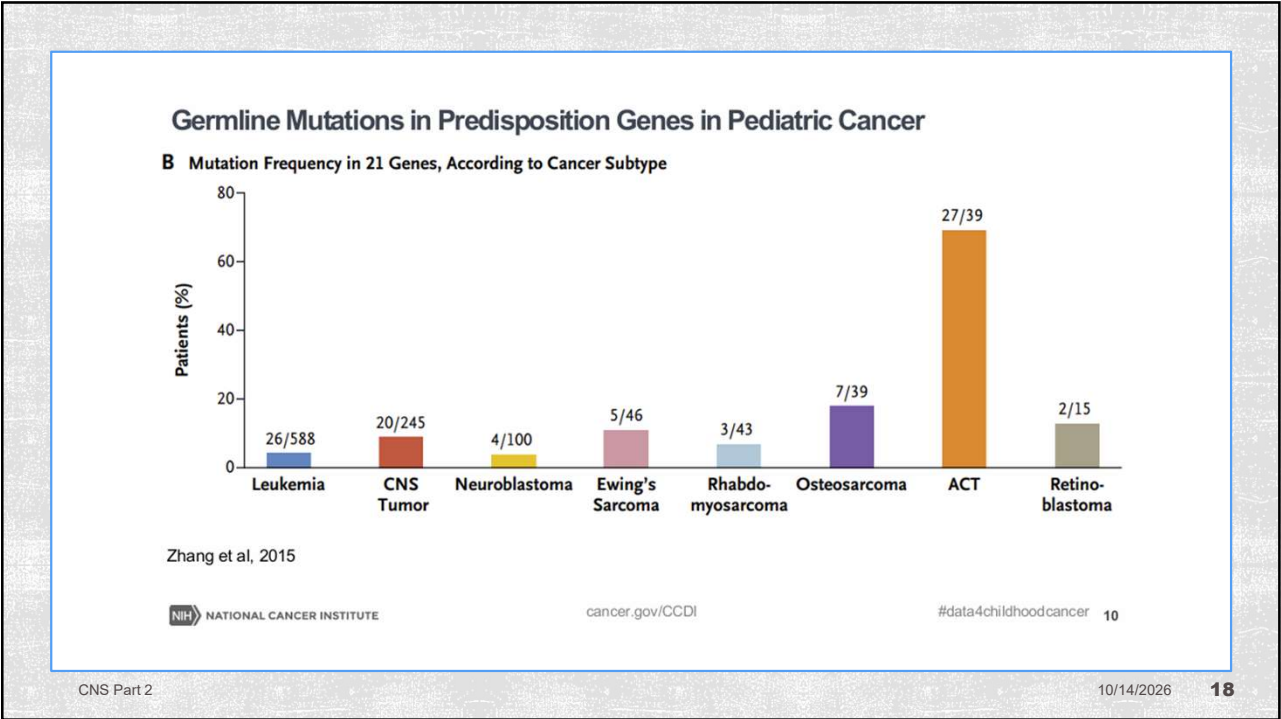
<https://www.genome.gov/genetics-glossary/Genome-Wide-Association-Studies-GWAS>

CNS Part 2

10/14/2026

17

17



18



[Home](#) [About Us](#) [Resources](#) [Get Involved](#) [Events](#) [News](#)



Helping To Revolutionize Cancer Research & Treatment



Our Story
Dragon Master Foundation

At age 16, Amanda's son, David, was diagnosed with glioblastoma multiforme

0:48 / 5:28
of time to learn
[Music]

YouTube

<https://www.dragonmaster.org/about-us>

FCDS webcast series

10/1/2026

19

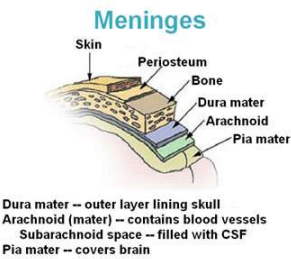
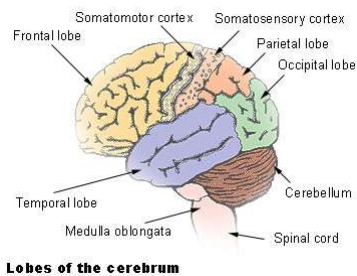
ANATOMY

FCDS webcast series

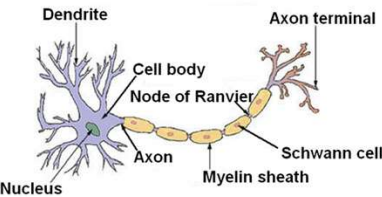
10/1/2026

20

Brain and Other CNS Anatomy



Structure of a Typical Neuron

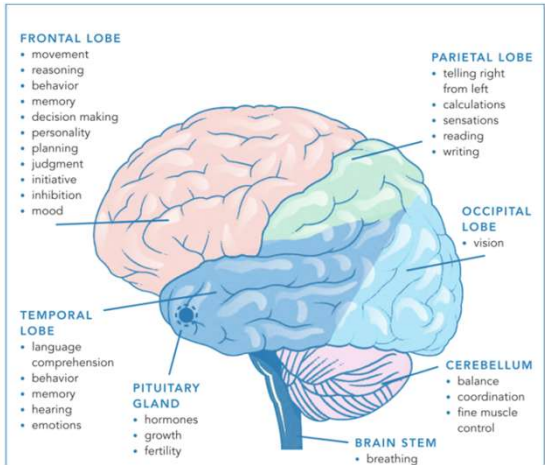


FCDS webcast series

10/1/2026

21

21



Brain Structure and Their Functions

<https://braintumor.org/brain-tumors/diagnosis-treatment/signs-symptoms/>

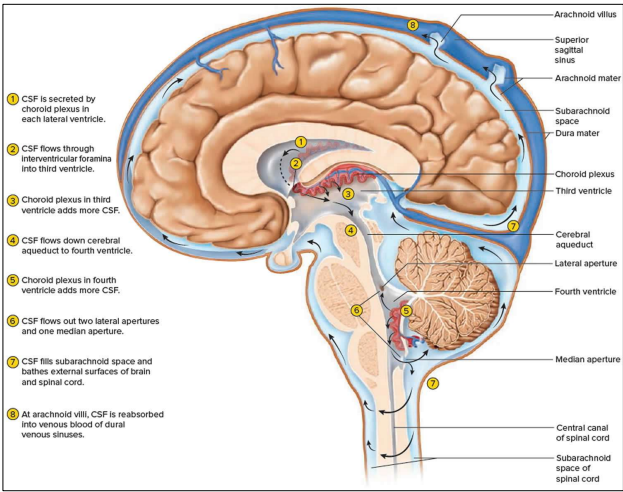
FCDS webcast series

10/1/2026

22

22

Circulating Cerebrospinal Fluid



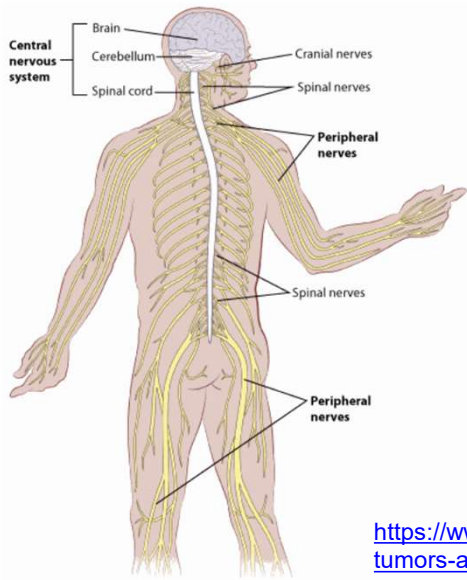
Healthjade.net

CNS Part 2

10/14/2026

23

23



Cranial Nerves and Spinal Cord

- **Cranial nerves**
 - The cranial nerves extend directly from the brain (as opposed to coming out of the spinal cord).
- **Spinal cord**
 - The spinal cord is a long bundle of nerves inside the spine.

<https://www.cancer.org/cancer/types/brain-spinal-cord-tumors-adults.html>

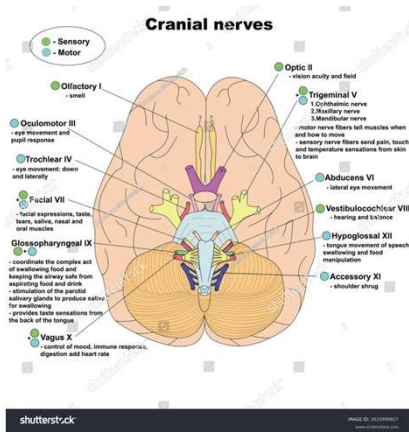
FCDS webcast series

10/1/2026

24

24

Image of Cranial Nerves



CNS Part 2

10/14/2026

25

Cranial Nerves

#	Name	Function	Tumor Example
I	olfactory	The olfactory nerve carries impulses for the sense of smell .	Esthesioneuronblastoma
II	optic	The optic nerve carries impulses for the sense of sight.	Optic nerve glioma
III	oculomotor	The oculomotor nerve is responsible for motor enervation of upper eyelid muscle, extraocular muscle and pupillary muscle.	Schwannoma
IV	trochlear	The trochlear nerve controls an extraocular muscle.	Schwannoma
V	trigeminal	The trigeminal nerve is responsible for sensory enervation of the face and motor enervation to muscles of mastication (chewing).	Malignant peripheral nerve sheath tumor (MPNST)
VI	abducent	The abducent nerve innervates a muscle, which moves the eyeball .	Schwannoma

FCDS webcast series

10/1/2026

26

Cranial Nerves

VII	facial	The facial nerve enervates the muscles of the face (facial expression).	Schwannoma (rare)
VIII	vestibulocochlear	The vestibulocochlear nerve is responsible for the sense of hearing and balance (body position sense).	Vestibular Schwannoma
IX	glossopharyngeal	The glossopharyngeal nerve innervates muscles involved in swallowing and taste . Lesions of the ninth nerve cause difficulty swallowing and taste disturbance.	Glomus tumor
X	vagus	The vagus nerve innervates the gut (gastrointestinal tract) , heart and larynx .	MPNST, paraganglioma
XI	accessory	The accessory nerve innverates sternocleidomastoid muscles and the trapezius muscles.	Schwannoma
XII	hypoglossal	The hypoglossal nerve enervates the muscles of the tongue .	Schwannoma

<https://training.seer.cancer.gov/brain/tumors/anatomy/nerves.html>

FCDS webcast series

10/1/2026

27

27

Malignant Brain CNS Tumors,

- Symptoms
- Adult Tumors
- Common Types
- Treatment Options

10/1/2026

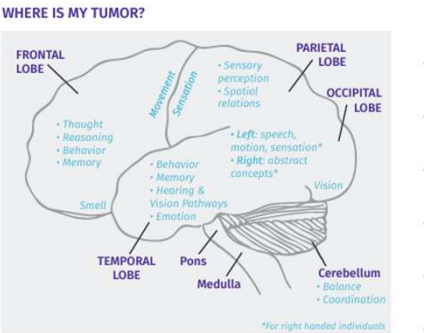
FCDS webcast series

28

28

Malignant Brain Tumor Symptoms

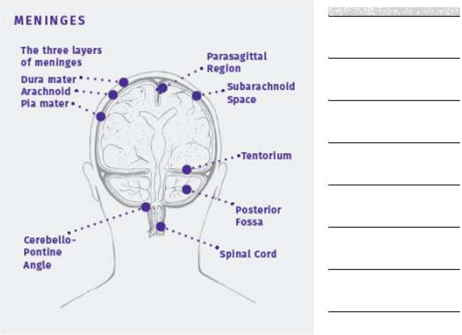
- Headaches
- Seizures
- Neurocognitive impairment
- Neurologic deficits
- Changes in personality or behavior
- Weakness, numbness, loss of movement
- Difficulty with balance or dizziness



<https://braintumor.org/brain-tumors/diagnosis-treatment/signs-symptoms/>

Adult CNS Tumors

- Astrocytic Tumors
- Oligodendroglial Tumors
- Mixed Gliomas
- Ependymal Tumors
- Medulloblastomas
- Pineal Parenchymal Tumors
- Meningeal Tumors
- Germ Cell Tumors
- Craniopharyngioma (Grade I)



https://www.cancer.gov/types/brain/patient/adult-brain-treatment-pdq#_572

Glioma NOS

- **Code Histology 9380/3**
- Not listed in the non-malignant histology table
- **A low-grade glioma is considered a borderline tumor; assign histology code 9380/1**
- The term Glioma, NOS is not a term WHO recommends using, and the preferred term is Astrocytoma
- **Starting with cases diagnosed in 2025, an edit will trigger when the histology 9380/3 is used for a brain primary.** The edit can be overridden, but the registrar should review the case carefully to see if a more specific histology can be used.

When assigning the code for low grade hemispheric glioma infant-type, ignore the term “low grade”. Look at the synonyms for Diffuse midline glioma H3 K27M mutant, you will find Infant-type hemispheric glioma . The correct code for this histology is 9385/3.

FCDS webcast series

10/1/2026

31

31

Types of Malignant Brain Tumors

Gliomas

Astrocytomas

Ependymomas

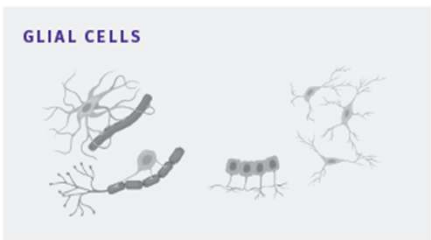
Glioblastoma multiforme (GBM)

Oligodendrogliomas

Medulloblastomas

Hemangioblastomas

Rhabdoid tumors



FCDS webcast series

10/1/2026

32

32



Glioblastoma multiforme (GBM)

- Most aggressive brain cancer
- Affects the glial cells
- Treatment
 - Surgery
 - Radiation
 - Chemotherapy
 - Clinical Trials
 - TTFields
 - Targeted therapies
- Survival 12-14 months

FCDS webcast series

10/1/2026 33

- **Astrocytoma NOS 9400 1**
 - Astrocytoma, IDH-mutant, grade 2
 - Diffuse astrocytoma IDH-mutant
 - Diffuse astrocytoma IDH-wildtype
 - Diffuse astrocytoma NOS
- **Subtype (s) Variants and Synonyms**
 - Anaplastic astrocytoma IDH-mutant 9401
 - Anaplastic astrocytoma IDH-wildtype

wildtype

- Anaplastic astrocytoma NOS
- Astrocytoma, IDH-mutant, grade 3 9401
- Astrocytoma, IDH-mutant, grade 4 9445
- Gemistocytic astrocytoma IDH-mutant 9411
- Pleomorphic xanthroastrocytoma 9424
- Anaplastic pleomorphic xanthroastrocytoma



Astrocytoma

FCDS webcast series

10/1/2026 34

Primary CNS Lymphoma

- Primary central nervous system (CNS) lymphoma is a disease in which malignant (cancer) cells form in the lymph tissue of the brain and/or spinal cord.
- Lymphocytes (carried in the lymph) travel in and out of the central nervous system (CNS). Some of these lymphocytes may become malignant and cause lymphoma to develop in the CNS.
- Primary CNS lymphoma can start in the brain, spinal cord, or meninges (the layers that form the outer covering of the brain). Because the eye is so close to the brain, primary CNS lymphoma can also start in the eye (called ocular lymphoma).

<https://www.cancer.gov/types/lymphoma/patient/primary-cns-lymphoma-treatment-pdq>

FCDS webcast series

10/1/2026

35

35

Treatment Options

- Surgery
- Radiation therapy (x-rays. Gamma rays, protons and neutrons)
- Chemotherapy (wafers, TMZ or Temodar)
- Targeted therapy (Avastin and Afintor/Everolimus)
- Tumor Treating Fields (wearable medical device)
- Clinical trials (investigational or experimental)
- Supportive care (anti-seizure medication, palliative care)



Illustrative TTFIELDS system

<https://braintumor.org/brain-tumors/diagnosis-treatment/diagnosis/treatment-options/>

FCDS webcast series

10/1/2026

36

36

Cancer Directed Surgery Codes

Brain

Meninges C70.0–C70.9, Brain C71.0–C71.9,
Spinal Cord, Cranial Nerves and Other Parts of Central Nervous System C72.0–C72.9

Do not code laminectomies for spinal cord primaries.

Codes

A000 None; no surgery of primary site

A100 Tumor destruction, NOS

No specimen sent to pathology from surgical event A100.

Do not record stereotactic radiosurgery (SRS), Gamma knife, Cyber knife, or Linac radiosurgery as surgical tumor destruction. All of these modalities are recorded in the radiation treatment fields.

A200 Local excision of tumor, lesion or mass; excisional biopsy
A210 Subtotal resection of tumor, lesion or mass in brain
A220 Resection of tumor of spinal cord or nerve

A300 Radical, total, gross resection of tumor, lesion or mass in brain

A400 Partial resection of lobe of brain, when the surgery cannot be coded as A200–A300.

A550 Gross total resection of lobe of brain (lobectomy)

Codes A300–A550 are not applicable for spinal cord or spinal nerve primary sites.
Specimen sent to pathology from surgical events A200–A550.

A900 Surgery, NOS

A990 Unknown if surgery performed

Gamma Knife radiosurgery



AI-generated educational illustration

- [Afinitor \(Everolimus\)](#)
- [Afinitor Disperz \(Everolimus\)](#)
- [Alymsys \(Bevacizumab\)](#)
- [Avastin \(Bevacizumab\)](#)
- [Belzutifan](#)
- [Bevacizumab](#)
- [BiCNU \(Carmustine\)](#)
- [Carmustine](#)
- [Carmustine Implant](#)
- [Danyelza \(Naxitamab-gqgk\)](#)
- [Dabrafenib Mesylate](#)
- [Eflornithine Hydrochloride](#)
- [Everolimus](#)
- [Gliadel Wafer \(Carmustine Implant\)](#)
- [Iwifin \(Eflornithine Hydrochloride\)](#)
- [Naxitamab-gqgk](#)
- [Ojemda \(Tovorafenib\)](#)
- [Tafinlar \(Dabrafenib Mesylate\)](#)
- [Temodar \(Temozolomide\)](#)
- [Temozolomide](#)
- [Tovorafenib](#)
- [Trametinib Dimethyl Sulfoxide](#)
- [Voranigo \(Vorasidenib Citrate\)](#)

Drugs Approved for Brain Tumors

<https://www.cancer.gov/about-cancer/treatment/drugs/brain>



CNS sites defined as paired laterality must be coded

- Acoustic nerve C724
- Cerebral meninges C700
- Cerebrum C710
- Cranial nerves C725
- Frontal Lobe C711
- Occipital lobe C714
- Olfactory nerve C722
- Optic Nerve C723
- Parietal lobe C713
- Temporal lobe C712

FCDS webcast series

10/1/2026 39

Codes	Description
0	Not paired
1	Right origin
2	Left origin
3	Only one side involved unspecified
4	Bilateral
5	Paired site: midline tumor
9	Paired site no information on laterality

What is coded for Laterality?

- 03/09/2025 Pediatric patient presents with 1 month of worsening vomiting. Head CT shows a lobulated **4th ventricle mass**; physical exam otherwise negative.
- 03/09/2025 CT Head: Lobulated hyperdense 4th ventricular mass near the foramen of Magendie with mild ventricular enlargement/possible transependymal CSF flow. Impression: 4th ventricular mass with hydrocephalus, suspicious for medulloblastoma or ependymoma.
- 03/10/2025 MRI Brain Enhancing 4th ventricular mass, 2.6 x 3.4 x 4.0 cm, extending to the foramen magnum without cervical canal extension.
- 03/10/2025 MRI C-T-L Spine: Normal.
- 03/13/2025 Suboccipital craniectomy with gross total resection of **4th ventricle tumor**. Pathology: posterior fossa group A (PFA) ependymoma (9396/3), WHO grade 3; midline laterality.
- **The Correct answer is 0**

FCDS webcast series

10/1/2026 40

EOD & SS2018 CNS Tumors

EOD Codes	Description	SS2018
050	benign or borderline tumors	NA
100	confined to brain, ventricles, or meninges	Local (code 1)
500	Tumor crosses the midline, extension or invasion major vessels, nerves, invades other CNS tissue	Regional (code 2)
700	Circulating Cells in Cerebrospinal Fluid (CSF) Bone other than skull, nasal cavity, nasopharynx, posterior pharynx outside of CNS	Distant (code 7)

Note 3: Midline shift

› A midline shift is not the same thing as crossing the midline (code 500).
› Documentation must state "crossing/crosses the midline"

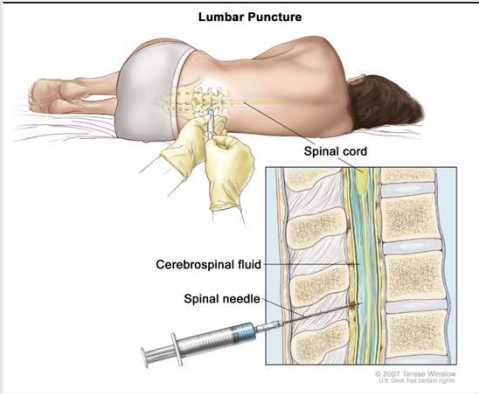
What is Coded for EOD?

- Pediatric patient presented on 05/03/2025 with several months of worsening headaches and new vision abnormalities. Initial clinical impression was likely glioma.
- Imaging showed an enhancing **fourth ventricle mass (C715)** measuring approximately 3.5 cm with cerebellar infiltration and diffuse intracranial leptomeningeal dissemination. MRI spine demonstrated scattered leptomeningeal disease throughout the spine, with the largest deposit at T9 measuring 1.2 x 0.4 x 0.3 cm.
- Additional imaging identified multiple **enhancing osseous lesions throughout the axial skeleton**, including a right acetabular lesion measuring. PET scan showed sclerotic lesions in the spine, pelvis, and left femur without appreciable FDG uptake
- 5/4/25 Brain lesion biopsy: **4th ventricle with disseminated leptomeningeal disease; positive for diffuse midline glioma, H3 K27 altered, WHO grade 4; CSF positive for malignant cells. 5/10/25 bone, acetabulum biopsy pos mets glioma**

EOD of Primary Tumor
500 Crosses the midline with extension or invasion of other parts CNS
700 CSF , bone, nasal cavity, nasopharynx, extension outside CNS
800 No evidence of Primary Tumor

SS2018 Distant CNF

- 7 Distant site(s)/lymph node(s) involved
- Distant site(s) (including further contiguous extension)
 - Circulating cells in cerebral spinal fluid (CSF)
 - Nasal cavity
 - Nasopharynx
 - Other direct extension outside CNS
 - Posterior pharynx
 - Distant lymph node(s), NOS
 - Distant metastasis, NOS
 - Carcinomatosis
 - Distant metastasis WITH or WITHOUT distant lymph node(s)
 - Metastasis within CNS and CSF pathways
 - "Drop" metastasis
 - Extra-neural metastasis
 - Metastasis outside the CNS



FCDS webcast series

10/1/2026

Case Scenario - Medulloblastoma

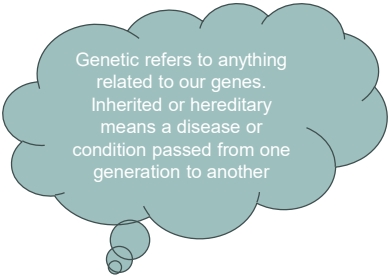
- This case involves a right cerebellar/posterior fossa mass involving the vermis with extension into the fourth ventricle and brainstem.
- Imaging favored medulloblastoma, with no evidence of drop metastases. A near-total resection was performed of a tumor arising from the roof of the cerebellum, extending into 4th ventricle and brainstem, as well as up into 3rd ventricle, but residual tumor remained along the fourth ventricle because complete removal was not safely possible.
- Final histology confirmed medulloblastoma, CNS WHO grade 4.
- **What is Summary Stage?**
 - Local
 - Regional
 - Distant

FCDS webcast series

10/1/2026

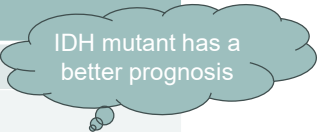
SSDI CNS Tumors

- **Brain Molecular Markers**
 - **Note 1:** Physician statement of histologic subtype can be used to code this data item when no other information is available
 - Code 85 when histology is NOT 9385/3, 9396/3, 9400/3, 9401/3, 9430/3, 9440/3, 9450/3, 9451/3, 9471/3, 9478/3, 9421/1, 9430/3, 9500/3
 - This includes microscopically or non-microscopically confirmed cases
 - Code 99 when histology is 9385/3, 9396/3, 9400/3, 9401/3, 9430/3, 9440/3, 9450/3, 9451/3, 9471/3, 9478/3, 9421/1, 9430/3, 9500/3
 - AND there is no microscopic confirmation
- **Chromosome 1p Status**
- **Chromosome 19q Status**
- **MGMT**
- **Brain Primary Tumor Location**



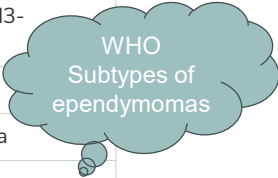
Brain Molecular Markers Codes by Histology

01	9400/3	Astrocytoma, IDH-mutant, grade 2
02	9400/3	Diffuse astrocytoma, IDH-wildtype
03	9401/3	Astrocytoma, IDH-mutant, grade 3
04	9401/3	Anaplastic astrocytoma, IDH-wildtype
05	9440/3	Glioblastoma, IDH-wildtype
06	9450/3	Oligodendroglioma, IDH-mutant and 1 p/19q co-deleted
07	9451/3	Oligodendroglioma, IDH-mutant and 1p/19q co-deleted, grade 3
08	9471	Medulloblastoma, SHH-activated and TP53 wildtype



Brain Molecular Markers Codes by Histology

09	9478/3	Embryonal tumor with multilayered rosettes, C19MC-altered
10	9385/3	Diffuse hemispheric glioma, H3-34 mutant
11	9385/3	Diffuse midline glioma, H3 K27-altered
12	9385/3	Diffuse pediatric-type high-grade glioma, H3-wildtype and IDH-wildtype
13	9385/3	Infant-type hemispheric glioma
14	9396/3	Posterior fossa group A (PFA) ependymoma
15	9396/3	Posterior fossa group B (PFB) ependymoma



FCDS webcast series

10/1/2026

Brain Molecular Markers Codes by Histology

15	9396/3	Posterior fossa group B (PFB) ependymoma
16	9396/3	Spinal ependymoma, MYCN-amplified
17	9396/3	Supratentorial ependymoma, YAP1 fusion-positive
18	9396/3	Supratentorial ependymoma, ZFTA fusion-positive
19	9421/1	Diffuse astrocytoma, MYB- or MYBL1-altered, Diffuse low grade glioma, MAPK pathway altered, and pilocytic astrocytoma
20	9421/1	Diffuse low-grade glioma, MAPK pathway-altered

CNS Part 2

10/14/2026

Brain Molecular Markers Codes by Histology

21	9430/3	Astroblastoma, MN1-altered
22	9500/3	CNS neuroblastoma, FOXR2-activated
23	9500/3	CNS tumor BCOR internal tandem duplication
85	NA	Not applicable: Histology not 9385/3, 9396/3, 9400/3, 9401/3, 9421/1, 9430/3, 9440/3, 9450/3, 9451/3, 9471/3, 9478/3, 9421/1, 9430/3, 9500/3
86	NA	Benign or borderline tumor Excludes: 9421/1 (codes 19-20)
87	NA	Test ordered, results not in chart
88	NA	Not applicable: Information not collected for this case (If this item is required by your standard setter, use of code 88 will result in an edit error.)
99	NA	Not documented in medical record, No microscopic confirmation Brain molecular markers not assessed or unknown if assessed

CNS Part 2

10/14/2026

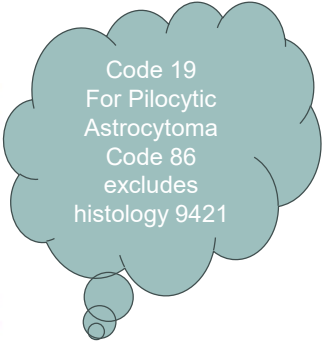
49

49

Error 3341 Brain Molecular Marker, Morphology

Error:3341 Force:N Brain Molecular Markers, Morphology ICD-O-3 (NAACCR)
Discrepant Data: Edit: Brain Molecular Markers, Morphology ICD-O-3 (NAACCR) [Tag:N3032]
[Agency:FCDS]
E: 3341: Conflict between Histologic Type ICD-O-3: 9421 and Brain Molecular Markers: 86 for Date of Diagnosis: Y:2025 M:07 D:15
Date of Diagnosis(390) [Y:2025 M:07 D:15]
Schema ID(3800) [09721]
Histologic Type ICD-O-3(522) [9421]
Behavior Code ICD-O-3(523) [1]
Brain Molecular Markers(3816) [86]
Type of Reporting Source(500) [1]
Record Type(10) []

Error:3269 Force:Y This is an unlikely combination for site/histology/behavior. Please review.
Discrepant Data: Edit: Primary Site, Morphology-Type, Beh ICD03, 2024 (SEER) [Tag:N7040]
[Agency:FCDS]
M: Check that the site, histology, and behavior are coded correctly
E: 3269: Primary Site: C719, Histologic Type ICD-O-3: 9421/1 is an unlikely combination for Date of Diagnosis: Y:2025 M:07 D:15. Please review.
Date of Diagnosis(390) [Y:2025 M:07 D:15]
Primary Site(400) [C719]
Histologic Type ICD-O-3(522) [9421]
Behavior Code ICD-O-3(523) [1]
Over-ride Site/Type(2030) []
Record Type(10) []



CNS Part 2

10/14/2026

50

50

CNS Grade Coding Practices

Note 5: Codes 1–4 take priority over A–D, L, and H.

Note 6: CNS WHO classifications

Code the WHO grading system for selected tumors of the CNS as noted in the AJCC 8th edition Table 72.2 when the WHO grade is not documented in the record.

A list of the histologies that have a default grade can also be found in the Brain/Spinal Cord CAP Protocol

o For benign tumors ONLY (behavior 0), code 1 can be automatically assigned for all histologies.

Note 7: Code 9 when grade from primary site is not documented, clinical workup is not done (for example, cancer is an incidental finding during surgery for another condition), or grade checked "not applicable" on CAP Protocol (if available) and no other grade information is available

(<https://www.cap.org/protocols-and-guidelines/cancer-reporting-tools/cancer-protocol-templates>).

FCDS webcast series

10/1/2026

CNS CAP Protocol – WHO Grade

CAP Approved

CentralNervousSystem.Bc.Res.1.0.0.1.REL_CAPCP

2. WHO Classification of Tumours Editorial Board. WHO Classification of Tumours of the Endocrine and Neuroendocrine Tumours, 5th Edition, Volume 9. Lyon, France: IARC Press; 2022.

H. Histologic Grade
Below is a list of possible WHO grades for CNS tumors. The WHO grading of some of the more common CNS tumors is shown in Table 1. There is no formal TNM-based classification and staging system for CNS tumors.

CNS WHO Grades for CNS Tumors
CNS WHO grade 1
CNS WHO grade 2
CNS WHO grade 3
CNS WHO grade 4
CNS WHO grade not assigned

Table 1. CNS WHO Grading System for Some of the More Common Tumors of the CNS^{1,2}

Group	Type	Grade 1	Grade 2	Grade 3	Grade 4
Adult-type diffuse gliomas	Astrocytoma, IDH-mutant	X	X	X	
	Oligodendroglioma, IDH-mutant and 1p/19q co-deleted		X	X	
	Glioblastoma, IDH-wildtype				X
Pediatric-type diffuse low-grade gliomas	Diffuse glioma, MYB- or MYBL1-altered	X			
	Angiocentric glioma	X			
	Polymorphous low-grade neuroepithelial tumor of the young	X			
	Diffuse low-grade glioma, MAPK pathway-altered ^a				
Pediatric-type diffuse high-grade gliomas	Diffuse midline glioma, H3 K27-altered				X
	Diffuse hemispheric glioma, H3 G34-mutant				X
	Diffuse pediatric-type high-grade glioma, H3K27M-alteration				X
	Infant-type hemispheric glioma ^a				
Circumscribed astrocytic gliomas	Pilocytic astrocytoma	X			

Central Nervous System

Central Nervous System

Current Version: Sep-25

PDF (v1.0.0.1)

Word (v1.0.0.1)

Previous Versions

Malignant CNS Case Discussions

FCDS webcast series

10/1/2026

55

55

#1 Case Discussion – CNS Lymphoma

- **3/11/25** CT head: acute to subacute infarcts vs. changes of post-reversible encephalopathy syndrome involving the parietal lobes and the right occipital lobe.
- **3/12/25** MRI brain: metastatic lesions measuring up to 2.4 cm in the **right occipital lobe, parasagittal left parietal lobe, and the corpus callosum.**
- **3/14/25** Brain tumor positive for **DLBCL**, EBV+ high-grade B-cell lymphoma. FISH (reflex) panel: MYC, BCL2 and BCL6 gene rearrangements not detected.
- **3/14/25** **Right-sided craniotomy for resection of tumor.**
- **4/29/25** **Vincristine, methotrexate and rituximab.**

What is the code for the following data items:

- Primary site
- Histology
- Cancer-directed surgery
- Summary stage:
- Chemotherapy
- Immunotherapy
- Brain molecular marker
- Brain location

FCDS webcast series

10/1/2026

56

56

Case Discussion – CNS Lymphoma Answers & Rationale

Primary Site	C719
Histology	9680
Cancer Directed Surg	A400
SS2018	Local
Chemotherapy	03
Immunotherapy	01
Brain Molecular Marker	99
Brain Location	Blank

A300 Radical, total, gross resection of tumor, lesion or mass in brain

Rule M2 Single Histology

Rule PH24: Organ involvement only
Code the primary site to the organ when the neoplasm is present only in an organ

A300 Radical, total, gross resection of tumor, lesion or mass in brain

The resection of the brain tissue surrounding the tumor is limited to ensure clean margins.

FCDS webcast series

10/1/2026

57

57

#2 Case Discussion - Medulloblastoma

- 2-18-2025 CT head likely malignant neoplastic mass lesion in the midline posterior fossa measuring 4.2 x 4.1 x 4.6 cm. based on the overall appearance in a patient of this age this likely represents a medulloblastoma.
- 2-19-2025 – MRI brain: there is a mixed solid cystic heterogeneously enhancing mass measuring 5.7 cm x 3.5 x 3.9cm involving the cerebellar vermis and fourth ventricle. No evidence of spinal drop mets.
- 2-20-2025 Suboccipital craniectomy for resection of posterior fossa brain tumor and C1 laminectomy
- 2-20-2025 Brain posterior foci excision embryonal tumor, consistent with medulloblastoma ; addendum diagnosis: brain posterior fossa excision medulloblastoma, SHH-activated and TP53 wild-type desmoplastic nodular medulloblastoma, CNS WHO grade 4.

What is the code for the following data items:

- Primary site
- Histology
- Grade Clinical
- Grade Path
- Cancer-directed surgery
- Summary stage:
- Chemotherapy
- Transplant/Endocrine
- Brain molecular marker
- Brain location

FCDS webcast series

10/1/2026

58

58

Case Discussion – CNS Medulloblastoma Answers & Rationale

Primary Site	C716
Histology	9471
Cancer Directed Surg	A550
SS2018	Regional
Chemotherapy	03
Transplant	20
Brain Molecular Marker	08
Brain Location	Blank

A300 Radical, total, gross resection of tumor, lesion or mass in brain

Rule M2 Abstract a single primary when there is a single tumor

Rule H3 Code the histology when only one histology is present

FCDS webcast series

10/1/2026

59

Malignant CNS and Peripheral Nerves

An Overview of Solid Tumor Rules (STR)

FCDS webcast series

10/1/2026

60

Malignant CNS and Peripheral Nerves

This site group includes the following primary sites:

- Peripheral nerves C470-C479;
- Meninges C700-C709
- Brain C710-C719;
- Spinal cord and CNS nerves C720
- Pituitary gland, craniopharyngeal duct, pineal gland C752-C753

FCDS webcast series

10/1/2026

Introduction Malignant CNS and Peripheral Nerves

Malignant CNS and Peripheral Nerves Site-group Instructions
C470-C479, C700, C701, C709, C710-C719, C720-C725, C728, C729, C751-C753
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Introduction

- Note 1:** This site group includes the following **primary sites**: Peripheral nerves C470-C479; cerebral meninges C700; spinal meninges C701; meninges NOS C709; brain C710-C719; spinal cord C720; cauda equina C721; olfactory nerve C722; optic nerve C723; acoustic nerve C724; cranial nerve NOS C725; overlapping lesion of brain and central nervous system C728; nervous system NOS C729; pituitary gland C751; craniopharyngeal duct C752; pineal gland C753.
- Note 2:** Non-malignant intracranial and CNS tumors have a separate set of rules.
- Note 3:** There **must be** a histologic, cytologic, radiographic, or clinical **diagnosis** of a **malignant** neoplasm /3.
- Note 4:** Tumors from a number of primary sites metastasize to the brain. Do not use these rules for tumors described as metastases; report metastatic tumors using the rules for that primary site.
- Note 5:** **Pilocytic astrocytoma/juvenile pilocytic astrocytoma** is reportable in North America as a **malignant** neoplasm 9421/3.
- See the Non-malignant CNS Rules when the primary site is optic nerve and the diagnosis is either optic glioma or pilocytic astrocytoma. The behavior for these tumors is non-malignant and coded 9421/1.
 - **IMPORTANT FOR 2023 FORWARD: Beginning 1/1/2023, all cases diagnosed with pilocytic astrocytoma/juvenile pilocytic astrocytoma and new related terminology are to be reported with behavior /1. They will no longer be collected with malignant behavior (/3). See the Non-malignant CNS Rules.**
- Note 6:** Do not use this site group for coding paragangliomas.
- Note 7:** Use this site group for histologies other than paraganglioma arising in C47...

FCDS webcast series

10/1/2026

Pilocytic Astrocytoma – Case Review

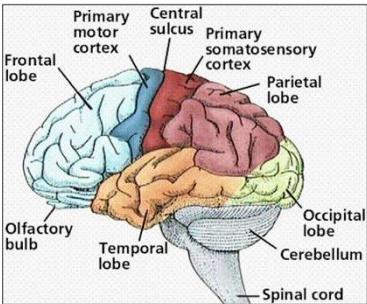
- Patient presents with headache and balance issues
- 7/12/25 MR of the brain revealed a large posterior fossa mass lesion likely originating from the vermis at the midline. Overall findings are likely medulloblastoma type. Orbital MR showed increased intracranial pressure secondary to the mass lesion. The MR spine is normal.
- 7/15/25 Posterior fossa craniotomy with tumor resection, pathology positive for pilocytic astrocytoma, WHO grade 1
 - Site C719, posterior fossa
 - Histology 9421/3 (9421/1)
 - Sequence 00 (60)
 - Brain Molecular Marker 85 (86)

Introduction Malignant CNS and Peripheral Nerves (Cont.)

- Reportable Primary Site Groups
- Equivalent or Equal Terms
- Reportability criteria
- Behavior Code
 - Priority Order for Using Documentation to Assign Behavior
 - Pathology
 - Cytology
 - Physician's documentation
 - Tumor board notes
 - Scans
 - WHO Grades for Select CNS Neoplasms

Priority for Coding Primary Site

- **Resection** (operative and pathology report)
- **Biopsy** (operative and pathology)
- **Minimal Information Available**
 - Tumor board
 - Physician documentation
- **Imaging**
 - MRI
 - CT
 - PET
 - Angiogram



Copyright © Sinauer Associates. Licensed permission granted.

Reportability Criteria

- Behavior must be malignant /3

Reportability Criteria

CNS neoplasms must meet **ALL three of the conditions below** to be reported as malignant /3:

1. The **behavior** must be malignant /3. See [Behavior Code](#) section.
Note: Never report a malignant /3 behavior code for a meningioma based on tumor extension to brain, skin of scalp, or other regional organs/tissue. Non-malignant CNS tumors can extend to the regional tissue and bone.
2. The **primary site** must be reportable (See [Section 1: Table 1](#))
3. The **histology** must be reportable (See [Section 1: Table 2](#))

Solid Tumor
Rules (STR)
Malignant
CNS – Site
Group
Instructions

10/14/2026

Site group instructions

- Introduction
- Equivalent or Equal Terms
- Reportability Criteria
- Behavior Code
- WHO Grades for Select CNS Neoplasms

CNS Part 2

67

STR Manual Malignant CNS -
Sections

- **Section 1: Reportable Primary Site and Histologies**
- Priorities for Coding Primary Site
- Reportable Primary Site Groups
- **Table 1** Reportable Primary Sites
- **Table 2** Specific Histologies NOS and subtypes/variants
- **Table 3** Coding Primary Site for Malignant CNS

- **Section 2: Additional Information to Complete the Abstract**
- **Table 4** Paired Sites for Malignant CNS
- Non Malignant CNS Tumors with Potential of Transforming to Malignant
- Illustrations
- Multiple Primary Rules
- Histology Rules

CNS Part 2

10/14/2026

68

CNS Case

Hemangiopericytoma (9150/3)

- 71-year-old White, non-Hispanic male presents with metastatic, recurrent brain tumor initially diagnosed in 2009 with hemangiopericytoma, grade 3, s/p suboccipital craniectomy with gross total resection of posterior fossa tumor, prior local recurrence in 2013.
- 2009 MRI revealed a 2.5 cm mass appearing to arise from the tentorium and compressing the RT cerebellar hemisphere just to the right midline.
- 8/17/2009 Brain Tumor, posterior fossa excision consist/w hemangiopericytoma grade, 3.

What is coded for the primary site?

- C719
- C700
- The correct primary site is C70.0 for tentorium cerebelli because C719 is not valid with histology 9150/3 and behavior.

FCDS webcast series

10/1/2026

69

69

Malignant CNS and Peripheral Nerves Reportable Site Groups

Site Group	ICD-O-3 Topography Codes
Brain	C710 - C719
Cranial Nerves	C722 - C725
III-Defined Sites, CNS	C728 - C729
Intracranial Duct and Glands	C751 - C753
Meninges	C700 - C709
Peripheral Nerve and Autonomic Nervous System	C470 - C479
Spinal Sites	C701, C709, C720 - C721

FCDS webcast series

10/1/2026

70

70

Malignant CNS Table 2 Reportable Histologies, Subtypes/Variants

Malignant CNS and Peripheral Nerves Site-group Instructions
C470-C479, C700, C701, C709, C710-C719, C720-C725, C728, C729, C751-C753
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Table 2: Specific Histologies, NOS, and Subtypes/Variants

Specific or NOS Term, Code, and Synonym(s)	Subtype(s)/Variant(s) and Synonym(s)
Anaplastic ganglioglioma 9505	
Astroblastoma 9430 Astroblastoma, MN1-altered	
Astrocytoma NOS 9400 ¹ - Astrocytoma, IDH-mutant, grade 2 - Diffuse astrocytoma IDH-mutant - Diffuse astrocytoma IDH-wildtype - Diffuse astrocytoma NOS	Anaplastic astrocytoma IDH-mutant 9401 - Anaplastic astrocytoma IDH-wildtype - Anaplastic astrocytoma NOS - Astrocytoma, IDH-mutant, grade 3 Astrocytoma, IDH-mutant, grade 4 9445 Gemistocytic astrocytoma IDH-mutant 9411 Pleomorphic xanthoastrocytoma 9424 - Anaplastic pleomorphic xanthoastrocytoma
Cauda equina neuroendocrine tumor 8693 (/3) ²	

Synonyms

Subtypes, variants, and synonyms

FCDS webcast series

10/1/2026

71

71

Equivalent or Equal Terms

Malignant CNS and Peripheral Nerves Site-group Instructions
C470-C479, C700, C701, C709, C710-C719, C720-C725, C728, C729, C751-C753
(Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Equivalent or Equal Terms

These terms can be used interchangeably:

- And; with
- Note:** "And" and "with" are used as synonyms when describing multiple histologies within a single tumor.
- Cerebrospinal fluid; CSF
- Dura; meninges
- Extradural; not within the meninges; within the cranium; within the skull but not within the cerebral meninges
- Extramedullary; outside medulla oblongata C700
- Infratentorial; below the tentorium cerebelli; either cerebellum or brainstem
- Intracranial; within the skull, within the cranium
- Intradural; between layers of the cerebral meninges; C700
- Intradural-extramedullary; within the spinal canal but outside of the nerves
- Intraspinal; occurring within the spinal column especially the vertebral canal; spinal nerve roots
- Site; topography
- Supratentorial; above the tentorium cerebelli; cerebrum
 - Cerebrum contains frontal lobe, parietal lobe, occipital lobe, and temporal lobe
- Tentorium cerebelli; cerebellar tentorium
- Tumor; mass; lesion; neoplasm when
 - These terms are used **ONLY** to determine multiple primaries
 - Do not use these terms for casefinding or determining reportability
- Type; subtype; variant
- WHO Grade 3 and WHO Grade 4; malignant; invasive; /3

FCDS webcast series

10/1/2026

72

72

Priority Order for Using Documentation

- Behavior code
 - Pathology resection, biopsy
 - Cytology
 - Physician documentation
 - Scans
 - Who Grade
- Reportable Primary Sites and Histology
- Additional information to complete the abstract

FCDS webcast series

10/1/2026



Malignant CNS STRs – Multiple Primary Rules

Rule	Description
Rule M1	Abstract a single primary when it is not possible to determine if there is a single tumor or multiple tumors
Rule M2	Abstract a single primary when there is a single tumor
Rule M3	Abstract a single primary when a neoplasm is originally diagnosed as an oligodendroglioma and subsequently recurs in residual tumor tissue with different features
Rule M4	Abstract a single primary when a neoplasm is originally diagnosed as Glioma, NOS and subsequently recurs in residual tumor with a more specific histology
Rule M5	Abstract a single primary (the malignant) when a single tumor meets the following two criteria

FCDS webcast series

10/1/2026



• A patient was diagnosed with a ganglioglioma (9505/1) on 1/2/2019, active surveillance (Seq 60)

1 Feb. 2019

3 May 2023

• On 3/5/2023, the patient was diagnosed with anaplastic ganglioglioma (9505/3) and resected.

STR Rule M5 abstract a single primary when subsequent resection pathology is malignant /3

FCDS webcast series

Is the Anaplastic Ganglioglioma a New Primary?

10/1/2026

75

75

Malignant CNS STRs – Multiple Primary Rules

Rule	Description
Rule M6	Abstract multiple primaries when there are multiple CNS tumors, one of which is malignant /3 and the other is nonmalignant /0 or /1. A non-malignant CNS tumor and a malignant CNS tumor are always multiple primaries
Rule M7	Abstract: Multiple Primaries when a patient has a glial tumor and is subsequently diagnosed with a glioblastoma multiforme (9440)
Rule M8	Abstract a single primary when there are separate, non-contiguous tumors in the brain (multicentric/multifocal) with the same histology XXXX

IMPORTANT: The **major difference** between M5 and M6 is:

M5: No resection as first course of treatment AND when the same tumor is subsequently **resected**, pathology proves malignant behavior

M6: Tumor **resected** as first course of treatment. Subsequent tumor (**recurrence or de novo**) is malignant

FCDS webcast series

10/1/2026

76

76

38

Example of Rule M5

- 2/12/2021 A patient presents with a history of **low-grade glioma** in the left frontal lobe diagnosed via CT during an ER visit at a different facility
 - No further follow-up
 - No prior history of malignancy
 - Active Surveillance
- The patient presents to your facility on 5/23/24 with recurring headache. A CT was done that showed a new tumor in the left frontal lobe.
- A biopsy of the tumor showed an **astrocytoma, IDH-mutant, grade 3**.

Rule M6	Two Primaries	Histology
	C71.1	9380/1 – low grade glioma
	C71.1	9401/3 Astrocytoma IDH mutant grade 3

Rule M5: Abstract multiple primaries when there are multiple CNS tumors, one of which is malignant /3 and the other is nonmalignant /0 or /1.

CNS Part 2

10/14/2026



77

Rule M8 Example – Single Primary



The patient presented with multifocal brain tumors, one in the right parietal lobe and one in the left parietal lobe.



The patient had a resection of an **anaplastic astrocytoma (9401)** in the right parietal lobe (C713).



Three months later, the patient was diagnosed with a **de novo anaplastic astrocytoma (9401)** in the left parietal lobe (C713)



This is one primary because neither laterality nor timing are used to determine multiple primary status.

FCDS webcast series

10/1/2026



78

Malignant CNS Multiple Primary Rules

Rule M9	Abstract multiple primaries when multiple tumors are present in any of the following sites or subsites
Rule M10	Abstract multiple primaries when separate, non-contiguous tumors are two or more different subtypes/variants in Column 2, Table 2 in the Site-Group Instructions. Timing is irrelevant
Rule M11	Abstract a single primary when separate, non-contiguous tumors are Glioma NOS and a subtype/variant of Glioma NOS.
Rule M12	Abstract a single primary when separate, non-contiguous tumors are on the same row in Table 2 in the Site-Group Instructions. Timing is irrelevant
Rule M13	Abstract multiple primaries when separate, non-contiguous tumors are on different rows in Table 2 in the Site-Group Instructions. Timing is irrelevant

79

Rule M10 – Multiple Primaries

The tumors may be subtypes/variants of the same or different NOS histologies.

- **Same NOS:** Anaplastic astrocytoma IDH-mutant 9401 and gemistocytic astrocytoma IDH-mutant 9411 are both subtypes of astrocytoma NOS 9400/3 but are distinctly different histologies. **Abstract multiple primaries**

Specific or NOS Term, Code, and Synonym(s)	Subtype(s)/Variant(s) and Synonym(s)
Anaplastic ganglioglioma 9505	
Astroblastoma 9490 • Astroblastoma, MN1-altered	
Astrocytoma NOS 9400 ¹ • Astrocytoma, IDH-mutant, grade 2 • Diffuse astrocytoma IDH-mutant • Diffuse astrocytoma IDH-wildtype • Diffuse astrocytoma NOS	Anaplastic astrocytoma IDH-mutant 9401 • Anaplastic astrocytoma IDH-wildtype • Anaplastic astrocytoma NOS • Astrocytoma, IDH-mutant, grade 3 Astrocytoma, IDH-mutant, grade 4 9445 Gemistocytic astrocytoma IDH-mutant 9411 Pleomorphic xanthoastrocytoma 9424 • Anaplastic pleomorphic xanthoastrocytoma

Rule M10 Abstract multiple primaries when separate, non-contiguous tumors are two or more different subtypes/variants in Column 2, Table 2.

80

Non –Malignant CNS Multiple Primary Rules

Rule M14	Abstract a single primary when multiple tumors do not meet any of the above criteria.

Malignant CNS Tumor Histology Rules

- Priority Order for Using Documentation
- Coding Histology
- List of Ambiguous Terms
- List of Definitive Terms
- Single Tumors
- Multiple Tumors Abstracted as a Single Primary

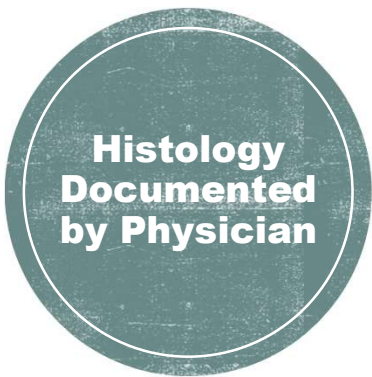
Priority Order for Using Documentation to Identify Histology

This is a hierarchical list of source documentation.

- 1. Pathology/tissue from resection of primary tumor
- A. Biomarkers
- B. The addendum(s) and/or comment(s)
- C. Final diagnosis / synoptic report as required by CAP
- D. CAP protocol

Scans – Priority order

- A. MRI
- B. CT
- C. PET
- D. Angiogram



- Code the histology documented by the physician when none of the above are available. **Use the documentation in the following priority order**
- A. Treatment plan
- B. Documentation from Tumor Board
- C. Documentation in the medical record that refers to original pathology, cytology, or scan(s)
- D. Physician's reference to type of cancer (histology) in the medical record

Coding Histology

- Code the more specific histology
- Use for one or more histologies within a single tumor
- Do not use this section in place of histology rules
- **Code the most specific histology or subtype variant regardless of whether it is described as:**
 - A. The majority or predominant part of tumor
 - B. The minority of tumor
 - C. A component
- Only code differentiation or features when there is a specific code

FCDS webcast series

10/1/2026

85

85

Using Ambiguous Terms

Do not code histology when described as:

- Architecture
- Foci; focus; focal
- Pattern

Ambiguous Terminology	
Appears	Presumed
Cannot rule out	Suspicious (for)
Likely	Suggestive of
Favor(s)	

Definitive Terminology	
Comparable with	Most likely
Compatible with	Probable
Consistent with	Typical (of)

Code the specific histology described by ambiguous terminology (list follows) ONLY when A or B is true:

- A. The only diagnosis available is one histology term described by ambiguous terminology OR
- B. There is an NOS histology and a more specific (subtype/variant) described by ambiguous terminology AND
 - Specific histology is clinically confirmed by a physician (attending, surgeon, oncologist, etc.) OR
 - Patient is receiving treatment based on the specific histology described by ambiguous term
- If the specific histology does not meet the criteria in #3B, then code the NOS histology.

FCDS webcast series

10/1/2026

86

86

STRs Ambiguous Terms

Source & Intended Use

Each source should be used only for its intended purpose



STORE

SPCSM

STR

STR

Home Manual

Home Manual

SS 2018

EOG

Ambiguous terms that constitute a diagnosis

Ambiguous terms for reportability

Ambiguous terminology for coding histology

Definitive terminology for coding histology

Ambiguous terms for reportability, diagnostic confirmation, and histology

Definitive terminology for coding histology

Ambiguous terminology for determining involvement

Ambiguous terminology for determining involvement

SURVEILLANCE RESEARCH PROGRAM

NATIONAL CANCER INSTITUTE

Division of Cancer Control and Population Sciences

SURVEILLANCE RESEARCH PROGRAM

NATIONAL CANCER INSTITUTE

Division of Cancer Control and Population Sciences

Solid Tumor Rules 2026 Update



Ambiguous Terminology

· Appears

· Cannot rule out

· Favor(s)

· Likely

· Presumed

· Suggestive of

· Suspicious (for)

Definitive Terminology

· Comparable with

· Compatible with

· Consistent with

· Most likely

· Probable

· Typical (of)

No changes were made to the rules for coding histology described by ambiguous terminology. Examples were added to the General Instructions.

A definitive term does not require clinical verification of the subtype or variant.

<https://seer.cancer.gov/tools/solidtumor/training.html>

CNS Part 2

10/14/2026

87

87

Malignant CNS Histology Rules – Single Tumor

Rules	Description
Rule H1	Code the reportable CNS tumor (Table 2 in the Site-group Instructions) when a patient has any of the following: • Neurofibromatosis type 1 (NF1), • Neurofibromatosis type 2 (NF2), • Schwannomatosis
Rule H2	Code malignant meningioma 9530 when the diagnosis specifically states malignant/invasive
Rule H3	Code the histology when only one histology is present (Use Table 2) Diffuse low-grade glioma, MAPK pathway-altered (9421)
Rule H4	Code the subtype/variant when there is an NOS and a single subtype/variant of that NOS Astrocytoma 9400 and a subtype/variant of astrocytoma Anaplastic astrocytoma IDH-mutant 9401

FCDS webcast series

10/1/2026

88

88

44

Malignant CNS Histology Rules – Multiple Tumors Abstracted as a Single Tumor

Rules	Description
Rule H5	Code malignant meningioma 9530 when the diagnosis specifically states malignant/invasive
Rule H6	Code the histology when only one histology is present in all tumors
Rule H7	Code the subtype/variant when all tumors are an NOS and a single subtype/variant of that NOS

FCDS webcast series

10/1/2026



FCDS Requirements – Pediatric Cases

- All pediatric cases meeting Florida’s definition of reportability must be reported – no exceptions
- Report all required data elements (except PDCS data items)
 - Demographics
 - Date of Diagnosis
 - Histology
 - Summary Stage
 - Method of Dx
 - Medical History
 - Any Treatment
- Frequency report at least quarterly
- 6 months after diagnosis or first contact
- Reference FCDS DAM for required data items

CNS Part 2

10/14/2026



93

94

94

94

Pediatric Data Collection

CNS Tumors

Histology	Information Collected
Astrocytoma	Age 30-39
	Includes benign, borderline and malignant
Additional data items	• Pediatric Primary Tumor: Based on EOD/SS • Pediatric Regional Nodes: 888 (not applicable) • Pediatric Mets: M Category (Toronto Staging) • Pediatric SSDIs: N/A - Regular SSDIs: BRAF Mutational Analysis (clinical significance) • New schema for SSDI, currently collected as SSDI for Colon and Rectum

FCDS webcast series10/1/202695

95

Pediatric Data Collection

CNS Tumors

Histology	Information Collected
Neuroblastoma	Age: All
	Includes malignant CNS tumors
Additional data items	• Pediatric Primary Tumor, Pediatric Regional Nodes, Pediatric Mets: Based on Children Oncology Group (COG) • Pediatric SSDIs: • International Neuroblastoma Risk Group Staging System (INRGSS) (Toronto Staging) • n-MYC Amplification (found on CAP protocol) • The International Neuroblastoma Pathology Prognostic Classification (INPC) (found on CAP protocol)

FCDS webcast series10/1/202696

96

98

98

98

SEER Educate

SEER*Educate

About

Training

Reports

Welcome to SEER*Educate

This comprehensive training platform is tailored specifically for cancer registry professionals to improve technical skills through applied testing on the latest coding guidelines and concepts.

Why Sign Up?

Free

Funded by the National Cancer Institute for use by registrars in hospitals and central registries to promote quality data collection.

Learn By Doing

Hundreds of practice case scenarios provided for coding data items with detailed rationales displayed in the results.

CE-Eligible

An accessible, practical, and self-directed solution for an ODS to earn 20 CE credits per cycle, including Category A CEs.

- 2025 SEER Workshop Cases - CEs close 10/01/2027

+ Brain

+ Medulloblastoma

FCDS webcast series

10/1/2026

99

SEER*Educate

About

Training

Reports

Overview Videos

Introduction

Training

Reports

Incomplete Tests

Demonstration Tests

Casefinding - Path - No CEs

Casefinding - Scans - No CEs

Coding - CEs

Disease Information - No CEs

General Knowledge - No CEs

ODS Prep - No CEs (formerly CTR Prep)

Refined Coding Exercises (Closed for New CE or ODS Prep)

Refined Multiple Choice

SEER Educational Workshop - CEs

ODS Prep - Histologies (Solid Tumors)

We are working on updating these exercises to Dx 2026. As we work on a site, we disable it. When it is completed, we move the completed for 2026 section.

EOD Exercises under Training, Coding - CEs

The majority of EOD exercises have been updated using the 2026 coding guidelines for EOD, Summary Stage, Grade, and SS20s. We are pausing 12/2025 in order to focus on other priorities.

New/Updated Coding Exercises under Training, Coding - CEs

The folder Dx 2026-2026 Solid Tumor Rules has new cases that use the updated 2026 STR Manual for all site groups.

99

Resources

- SEER Appendix C – Site Specific Coding
- FCDS DAM 2026
- STORE Manual 2026
- Solid Tumor Rules (Malignant and Non-Malignant) 2026
- SEER Program Coding and Staging Manual 2026
- NAACCR Pediatric Stage Training Series
- SEER Educate

FCDS webcast series

10/1/2026

100

100

50

10/1/2026

Key Takeaways

- Malignant CNS and Peripheral Nerve tumors are reportable — know the criteria
- Use the 2026 Solid Tumor Rules and documentation priority order for site, histology, and multiple primaries
- Brain/CNS are paired sites: code laterality, EOD, and Summary Stage 2018
- Code Grade and SSDIs, including molecular markers by histology
- Pediatric CNS cases are reportable and NAACCR PDCS requirements
- Apply the STR ambiguous-term rules exactly as written
- Practice with SEER Educate; keep the 2026 FCDS DAM, STORE, and SEER manuals at hand

FCDS webcast series

101

THANK YOU



Barbara Dearmon Neyland, BS, ODS-C

Quality Control Coordinator

Florida Cancer Data System

Department of Public Health Sciences

University of Miami Miller School of Medicine

FCDS webcast series

10/1/2026

102

References

- [Genetic and Rare Diseases Information Center
https://rarediseases.info.nih.gov/diseases/6902/li-fraumeni-syndrome](https://rarediseases.info.nih.gov/diseases/6902/li-fraumeni-syndrome)
- National Brain Tumor Society <https://braintumor.org/>
- American Cancer Society <https://www.cancer.org>
- SEER Educate <https://educate.fredhutch.org/>
- Central Brain Tumor Registry of the United States <https://cbtrus.org/reports/>
- Parker, S. (1952). The Human Body Book, An illustrated guide to its structure, function and disorders
- American Brain Tumor Association www.abta.org

FCDS webcast series

10/1/2026

