**Supplemental Table. ICD-9CM Diagnosis and Procedure Codes**

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| --- | --- |
| Classification | Code(s) |
| **Diagnosis**  Alcohol abuse  Aneurysm  Arteriovenous malformation  Cerebral venous sinus thrombosis  Ehlers Danlos  Intracerebral hemorrhage  Marfan syndrome  Malignant neoplasm of brain  Metastatic tumor  Moyamoya disease  Obesity  Opioid use  Overweight  Pregnancy  Tobacco use disorder  Sickle cell disease  Substance use disorder  Von Willebrand Disease | 291.0-291.3, 303.0, 303.9, 305.0, 790.3, 890.0, E860.0  430.0, 437.3, 39.51, 39.52  747.81  325.0, 437.6, 671.5  756.83  431  759.82  191.0 – 191.9  198.3  437.5  278.0, 278.01, 278.03, 649.1, 793.91, V77.8, V85.3, V85.4, V85.54  965.00 – 965.02, 965.09  278.02, V85.2, V85.53  640 – 677  305.1, 649.0, 989.84  282.6, 282.61, 282.62  304.0 – 9, 305.2 – 305.9  286.4 |
| **Procedure**  Craniotomy  External ventricular drain  Percutaneous endoscopic gastrostomy tube  Tracheostomy  Ventriculoperitoneal shunt | 01.2, 01.20, 01.23 – 01.28, 01.39  02.2, 02.20 – 02.22  43.1, 43.10, 43.11, 43.19, 44.32, 44.38, 44.39  31.1, 31.10, 31.2, 31.20, 31.21, 31.29  02.3, 02.30 – 02.35, 02.39 |