INTRODUCTION: Primitive brain tumours (BT) represent 2% of adult malignancies. BT patients are treated by different clinical specialists in Spanish hospitals. This means that we did not know with certainty how these patients are treated in Spain. To improve this knowledge the Neuro-Oncology Investigation Spanish Group (GEINO) designed this prospective observational multicenter study. OBJECTIVE: Describe the clinical and pathological characteristics and the treatment administered to patients with intra-axial brain tumors treated at Cancer Services in Spain. METHODS: Patients > 18 years old, diagnosed after January 2010 of a intra-axial BT, treated or not, and gave written informed consent. RESULTS: 397 patients from 22 hospitals were enrolled between 08/01/2012 and 12/03/2013. The median age was 56.9 (18-83) years. 58% were male and 42% female. 87% had ECOG ≤ 2. 48.5% had comorbidity. 9% had previous history of cancer (2% BT). Symptoms at diagnosis: seizures 30%, epilepsy 25%, cognitive impairment 23.5%, ataxia 7.5%. BT was located in frontal lobe in 33.5%, temporal 29%, parietal 13%, posterior fossa or brainstem 5%. By histology Glioblastoma (GBM) were 67%, anaplastic astrocytoma (AA) 12%, oligodendroglioma or oligoastrocytoma grade 2-3 were 11%, low-grade astrocytoma 6%, medulloblastoma 2% and ependymoma 1%. Of the 313 patients with GBM or AA 98% underwent surgery (SR): 40% complete resection, 41% partial, 11% stereotactic biopsy and 7% open biopsy. 8% of patients received neoadjuvant temozolomide (TMZ) +/- bevacizumab (BV) into a clinical trial, 94% of patients received radiotherapy (RT): 72% focal, 21% whole-brain and 6% hemi-brain. 83% of patients received adjuvant chemotherapy (QT): 99% TMZ with a median of 5 cycles (1-18) and 1% PCV (all were AA). Median Progression Free survival was 10.4 months (95%CI: 9-11.8) for GBM and 31.1 months (95%CI: 12.2-49.9) for AA. 130/167 (78%) of GBM or AA patients received treatment at 1st relapse: 14% SR, 8% RT and 96% QT (CPT11 + BV 31.5%, TMZ 20%, BV 15.5%, fotemustine 12%, dacomitinib 4%, lomustine 3% other 10%). Radiological response (RR) was documented in 26% of cases. 52 (32.5%) patients received treatment at 2nd relapse: SR 4%, RT 2% and QT 100% (Fotemustine 59%, CPT11 + BV 29%, BV alone 28.5%, other 8%). RR was documented in 9% of cases. Only 15 (9%) patients received treatment at 3rd relapse. Median overall survival (OS) for GBM was 23.6 months (95%CI: 16-31.2). Median OS for AA was not reached. CONCLUSION: This study reflects the clinical and pathological characteristics and the treatment administered to patients with intra-axial brain tumors treated at Cancer Services in Spain. First treatment was the standard in almost all patients. The exceptionally good OS in GBM patients probably reflects a selection of patients with good ECOG. This information can be useful to homogenize and to optimize treatment and for future clinical trials in BT patients.