for patients battling glioblastoma (GBM; debilitating, aggressive cancer) were critical. Tumor Treating Fields (TTFields; FDA-approved for GBM; antimitotic device) are alternating electric fields (200 kHz) delivered through scalp electrodes or transducer arrays to target rapidly dividing GBM cancer cells. Visitor restrictions at cancer-centers and often overburdened healthcare teams provided obstacles to cancer therapy. Health and safety of patients/caregivers, healthcare providers (HCPs), and patient Device Support Specialists (DSS) were prioritized. Evaluating the impact of Novocure® (device manufacturer) implemented strategies on overcoming limitations/restrictions to treatment-access during COVID-19. TREATMENT/PROTOCOL: TTFields (Optune) offers a viable noninvasive, built-in-care system for convenient, portable usage and is tolerable (no-related systemic effects) without overall impact on quality-of-life (except itchy skin). Novocure adopted/implemented protocols to meet health guidance/regulation (ie, World Health Organization, Centers for Disease Control and Prevention, local, hospitalclinic directives). PER-SPECTIVES: COVID-19 has forced a rapid shift to virtual-platforms/protocols, resulting in enhanced access and education for patients/caregivers and healthcare teams.

COVID-06. BRAIN TUMOURS AND COVID-19: THE PATIENT AND CAREGIVER EXPERIENCE
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BACKGROUND: Since the COVID-19 pandemic, thousands of medical procedures and appointments have been cancelled or delayed. The long-term effects of these drastic measures directly on brain tumour patients and their caregivers are unknown. The purpose of this study is to better understand how COVID-19 has affected this vulnerable population on a global scale. METHODS: An online 79-question survey was developed by the IBTA, in conjunction with the SNO COVID-19 Task Force. The survey was sent to over 120 brain tumour charities and not-for-profits worldwide and disseminated to brain tumour patients and caregivers. All responses were blinded to patient vs caregiver and by geographical region. RESULTS: In total, 1989 participants completed the survey from 33 countries, including 1459 patients and 530 caregivers. There were no significant differences in COVID-19 testing rates (p = 0.662) or the number of positive test results (p = 0.1068). Caregiving for a patient was significantly more taxing than patients (p = 0.0001). Patients from the Americas were most likely to have lost their jobs due to the pandemic, practiced self-isolation, and received telehealth services (p < 0.0001). Patients from Europe experienced the most treatment delays (p = 0.0031). Healthcare providers were ranked as the most trusted source of information. CONCLUSIONS: As a result of COVID-19, brain tumour patients and caregivers have experienced significant stress and anxiety. Healthcare providers need to reach out to brain tumour patients and caregivers to support them through the pandemic. Two different 501(c)3 nonprofit organizations. A semi-structured interview guide was used, utilizing prompts and open-ended questions to facilitate dialogue. A core set of COVID-19 topics were covered, including: financial, social, and healthcare issues.Respondents were generally satisfied with their care during COVID-19, with a few exceptions. The survey was completed by 183 unique brain tumor families during the pandemic (range 7-38 families per navigator). High concordance emerged across narratives, revealing important considerations for the neuro-oncology workforce. The most prominent theme was increased caregiver burden, attributed to maintaining social distancing by reducing visits from home-health aides and friends/family. A related theme that appeared at both patients and caregivers was increased social isolation due to social distancing, suspension of in-person support groups, and church/temple closures. Accessing clinical trials was a recurrent issue, exacerbated by patients increasing unwillingness to travel. Glioblastoma patients, especially those with recurrent tumors, expressed greater reluctance to travel. Access to standard-of-care treatment was rarely interrupted, but reduced access to supportive services – especially physical and occupational therapy – was identified as an emerging COVID-related deficit in clinical care.

COVID-08. THE DIVIDED PRINCIPLE OF JUSTICE: ETHICAL DECISION-MAKING IN CANCER CARE DURING THE COVID-19 PANDEMIC
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The four-principle approach to medical ethics, balancing prima facie obligations to beneficence, nonmaleficence, autonomy, and justice, has supplied a common language for the application of ethical analysis to medical practice. For the last four decades, the frayed edges of this edifice have been visible, however, by the ongoing COVID-19 pandemic (and other historical circumstances of severe resource limitation in the healthcare system). We interrogate ethical considerations involved in the state of medical care for COVID-19 patients demonstrating how the principle of justice in cancer care, in which the pillar of justice is exposed as internally divided. Specifically, we identify both patient-oriented and system-oriented principles of justice constituting a broader, unique among the classical four principles. This leads us to suggest a formal recognition of justice as a divided category, and a reclassification of the term into two subcategories which serve fundamentally different interests. The result is a more cohesive four principle approach in which all principles favour the deontological relationshions fostered between patients and providers, which exists in constant balance with the utilitarian interests of the broader medical system.

COVID-09. INVESTIGATION AND SUMMARY OF DIAGNOSIS AND TREATMENT OF NEUROLOGICAL TUMORS DURING COVID-19 IN CHINA
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In order to realize the condition of diagnosis and treatment of neurological tumors in China during COVID-19, CSNO (China Anti-Cancer Association Neuro-Oncology Professional Committee) organized this questionnaire survey. The survey was conducted online from June 3rd to 16th 2020. A total of 373 replies were received and 370 were confirmed valid questionnaires. The respondents were mainly neurosurgeons, as well as radiotherapists and pathologists in general hospitals and specialized hospitals in 29 provinces and municipalities in China. The survey results are summarized as follows. Firstly, the number of outpatient and inpatient of neurological tumors significantly declined during the COVID-19 pandemic, with the same period last year in more than 90% of hospitals surveyed, and a few specialized hospitals even stopped treatment due to the outbreak of COVID-19. Compelled by illness was the main reason for most of the patients to go to hospital. As the epidemic prevention and controlling, the normal treatment process for each patient was tedious than that for the same period before, and the costing time also turned longer. Most patients might feel poor medical experience, but they also expressed understanding for the present situation. The communication between patient and hospital also became more transparent, according to the data collected in this survey, the rate of patient satisfaction with the communication between patient and hospital in this period was more than 90%.
COVID-11. THE BRAIN TUMOR AND NOT FOR PROFIT AND CHARITY EXPERIENCE OF COVID-19: REACTING AND ADJUSTING TO AN UNPRECEDENTED GLOBAL PANDEMIC IN THE 21ST CENTURY

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The COVID-19 pandemic has not only affected individuals, but also diverse specific not-for-profits and charities. Brain tumor and charitable organizations around the world exist in all shapes and sizes, and address unmet needs of the patients and caregivers they serve. The International Brain Tumor Alliance (IBTA) carried out an international survey to identify organizational changes brought about by the virus and the approaches adopted to address operational challenges created by COVID-19. A 37-question survey was sent across the world. In total, 77 organizations from 22 countries responded. Descriptive statistics and content analysis were used to present results. Responses fell into three categories: 1) organizational characteristics, 2) the impact of COVID-19 on services, and 3) how COVID-19 has affected the financial and human resources in these organizations. Although organizational characteristics vary widely, common concerns reported across organizations were primarily: a) the disruption of activities which impacted organizations’ abilities to offer their usual services and b) challenges to sustaining funding. Although brain tumor organizations have been impacted by the COVID-19 pandemic, organizations quickly adjusted to this unprecedented global healthcare crisis.

COVID-12. THE LONGITUDINAL IMPACT OF COVID-19 PANDEMIC ON NEUROSURGICAL PRACTICE

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OBJECTIVE: This observational cross-sectional multicenter study aimed to evaluate the longitudinal impact of the coronavirus disease 2019 (COVID-19) pandemic on neurosurgical practice. METHODS: We included 29 participating neurosurgeons in centers from all four of the four districts in the Kingdom of Saudi Arabia. The study period, which was between March 5, 2020 and May 20, 2020, was divided into three equal periods to determine the longitudinal effect of COVID-19 measures on neurosurgical practice over time. RESULTS: During the 11-week study period, 474 neurosurgical interventions were performed. The median number of neurosurgical procedures per day was 5.5 (interquartile range [IQR]: 3.5–8). The number of cases declined from 72 in the first week and plateaued at the 30% range in subsequent weeks. The most and least number of performed procedures were oncology (129 [27.2%]) and functional procedures (6 [1.3%]), respectively. Emergency (Priority 1) cases were more frequent than non-urgent (Priority 4) cases (178 [37.6%] vs. 74 [13.6%], respectively). In our cohort, there were three positive COVID-19 cases. There was a significant among-period difference in the length of hospital stay, which dropped from a median stay of 7 days (IQR: 4 – 18) to 6 (IQR: 3 – 15) to 5 days (IQR: 2 – 8). There was no significant among-period difference with regard to surgery type, complications, or mortality. CONCLUSION: Our study demonstrated that the COVID-19 pandemic decreased the number of procedures performed in neurosurgical practice. The load of emergency neurosurgical procedures did not change throughout the three periods. This study has highlighted the need to designate resources to cover emergencies. Notably, with strict screening for COVID-19 infections, neurosurgical procedures could be safely performed during the early pandemic phase. We recommend to restart performing neurosurgical procedures once the pandemic gets stabilized to avoid possible post-pandemic health-care system intolerable overload.

COVID-13. EFFECTS OF COVID-19 PANDEMIC ON NEUROSURGICAL ONCOLOGY PRACTICES AT INOVA HEALTH SYSTEM: AN INSTITUTIONAL EXPERIENCE

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INTRODUCTION: Amidst the unprecedented nationwide ban on elective surgeries during the COVID-19 pandemic, concern regarding timely and safe treatment of patients with intracranial tumors has been raised in the neuro-oncology community. METHODS: A retrospective chart review was performed on all patients who underwent treatment for intracranial tumors from 3/3/2020 to 2019. Data recorded included patient demographics, diagnosis, type of surgery, period of intervention, time to treatment, and outcome. RESULTS: We have reviewed 100 consecutive patients with intracranial tumors at Inova. One patient was found to have COVID-19. There were no deaths or infections in the cohort. Median time to surgery was 2.5 days (range: 0–9) for high-grade glioma patients, 3 days for metastases, 3 days for meningiomas, and 26 days (range: 0–98) for pituitary adenomas, not significantly different from 2019. Time to chemotherapy and planned number of treatments were without significant difference. Among COVID-19 patients, three patients had head tumors. Only one patient experienced delayed radiation treatment (three weeks) due to inability to achieve seroconversion prior to planned simulation. Only one COVID-related mortality in our cohort. Disclosures: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

COVID-14. TELEMEDI?CE REVIEW IN NEURO-ONCOLOGY: COMPARATIVE EXPERIENTIAL ANALYSIS FOR BARROW NEUROLOGICAL INSTITUTE AND GEISINGER HEALTH DURING THE 2020 COVID-19 PANDEMIC

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Coronavirus disease 2019 (COVID-19) has grossly impacted how we deliver healthcare and how healthcare institutions derive value from the care provided. At increased infectious risk on immunosuppressive therapies and often have mobility limitations. Adapting to new technologies and reimbursement patterns were challenges that had to be met by the institutions while patients juggled with discussing their priorities and concerns and to identify new pathways to care. With the implementation of social distancing practices, telemedicine plays an increasing role in patient care delivery, particularly in the field of Neurology. This is of particular concern in our cancer patient population given that these patients are often at increased infectious risk on immunosuppressive therapies and often have mobility limitations. We reviewed telemedicine practices in neurology pre-/post-COVID-19 and evaluated the neuro-oncology clinical practice approaches of two large care systems, Barrow Neurological Institute and Geisinger Health. Practice metrics were collected for impact on clinic volumes, institutional recovery techniques, and task force development to address COVID-19 specific issues. Neuro-Oncology divisions reached >67% of pre-pandemic capacity (patient visits and slot utilization) within 3-weeks and returned to 90% capacity within 6-weeks of initial closures due to COVID-19. The two health systems rapidly and effectively implemented telehealth practices to recover patient volumes. While telemedicine will not replace the in-person clinical visit, telemedicine will likely continue to be an integral part of neuro-oncologic care. Telemedicine has also provided expanding access in remote areas and provides a convenient alternative to patients with limited mobility, transportation, or other socioeconomic complexities that otherwise challenge patient visit adherence.

COVID-15. COVIDNEUROONC: A UK MULTI-CENTRE, PROSPECTIVE COHORT STUDY OF THE IMPACT OF COVID-19 PANDEMIC ON THE NEURO-ONCOLOGY SERVICE IN THE UK

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OBJECTIVE: To describe the impact of COVID-19 pandemic on the management of patients with brain tumors. METHODS: We conducted a prospective multicentre study of patients with brain tumors managed in 50 UK hospitals between March 1st and June 30th, 2020. The main outcome was the proportion of patients who had a neurological event (NE) during the study period. The NEs included death, progression, recurrence, new neurological symptoms, or treatment change. RESULTS: We recruited 4,893 patients (median age 65 years) from 50 centres across the UK and followed them for a median of 4 months (IQR 2–8 months). 333 (6.8%) patients had an NE during follow-up. Most NEs were related to progression (271 patients, 82%), followed by death (52 patients, 16%). We found no significant difference in the rate of NEs after adjusting for potential confounders such as age, gender, race, and tumour type. DISCUSSION: The COVID-19 pandemic had a minimal impact on the rate of NEs in the brain tumour population. This is in line with other studies that have shown that the rate of tumour progression is not increased by the pandemic. However, disease management may have been affected by the pandemic, as suggested by the significant increase in the rate of death during the study period. Our study highlights the need for further research to understand the impact of the pandemic on brain tumour populations.