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**BACKGROUND:** The COVID-19 pandemic has profoundly affected cancer services. Our objective was to determine the effect of the COVID-19 pandemic on decision making and the resulting outcomes for patients with newly diagnosed or recurrent intracranial tumors. **METHODS:** We performed a multi-centre prospective study of all adult patients discussed in weekly neuro-oncology and skull base MDTs who had a newly diagnosed or recurrent intracranial (excluding pituitary) tumor between 01 April and 31 May 2020. All patients had follow-up data at least 30-days after the index MDT date. Descriptive statistical reporting was used. **RESULTS:** There were 1357 referrals for newly diagnosed or recurrent intracranial tumors across fifteen neuro-oncology centres. Of centres with all intracranial tumors, a change in initial MDT management was reported in 8.6% of cases (n=104/1210). Decisions to change the MDT management plan reduced over time from a peak of 19% referrals at the start of the study to 0% by the end of the study period. Changes in management were reported in 16% (n=75/466) of cases previously recommended for surgery and 28% of cases previously recommended for chemotherapy (n=20/72). The reported SARS-CoV-2 infection rate was similar in surgical and non-surgical patients (2.6% vs. 2.4%, p > 0.9). **CONCLUSIONS:** Disruption to neuro-oncology services in the UK caused by the COVID-19 pandemic was most marked in the first month, affecting all diagnoses. Patients considered for chemotherapy were most affected. In those recommended surgical treatment this was successfully completed. Longer-term outcome data will evaluate oncological treatments received by these patients and overall survival.

#### COVID-16. THE COVID-19 PANDEMIC FROM A NEURO-ONCOLOGY PERSPECTIVE: STRATEGIES, PROTOCOLS, AND LESSON LEARNED

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**INTRODUCTION:** The COVID-19 pandemic has had an incalculable impact on our national healthcare system, and elective surgical procedures have been particularly affected. Given that brain tumors often straddle the line between elective and emergent procedures, the pandemic has presented unique challenges to the neuro-oncology community. Here, we present our institutional protocols to (1) maintain an active outpatient neuro-oncology practice, (2) triage surgical cases under limited operating room availability, and (3) safely resume research efforts. **METHODS:** Given the rapidly evolving nature of the pandemic, we based the development of our protocols on the Delphi system to achieve consensus across a multi-disciplinary panel of experts. Specifically, we used this system to develop (1) a standardized physical examination that could be implemented over tele-medicine and (2) a triage system for surgical cases. Research efforts were largely suspended in the early days of the pandemic, however protocols for enrollment in clinical

trials as well as the resumption of benchwork were also developed. **RESULTS:** From the COVID-19 shelter-in-place order (March, 2020) through May 2020, our department performed 96 surgeries for the resection of brain tumors compared to 127 such surgeries from the three months prior. During this time, using a modified Delphi procedure, we developed detailed protocols to triage tumor cases. Implementation of telemedicine outpatient visits allowed the continuation of the neuro-oncology clinic and, ultimately, the resumption of clinical trials. **CONCLUSIONS:** The protocols presented here offer several strategies to continue neuro-oncological care during the pandemic, including the surgical treatment of brain tumors. As we prepare for future outbreaks, these treatment algorithms will help ensure that patients with brain tumors receive the highest level of care independent of COVID-19.

#### COVID-17. TUMOR TREATING FIELDS FOR GLIOBLASTOMA THERAPY DURING THE COVID-19 PANDEMIC: EXPERT CONSENSUS ON USE AND EXPERIENCE

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**BACKGROUND:** The COVID-19 pandemic has placed excessive strain on health care systems and this is especially evident in treatment decision-making for cancer patients. Glioblastoma (GBM) patients are among the most vulnerable due to increased incidence in the elderly (median age 64 years, peak between 75–84 years) and the short survival time. A virtual meeting was convened on May 9, 2020 with a panel of international neuro-oncology experts with hands-on experience using Tumor Treating Fields (TTFields). The objective was to assess the risk-to-benefit and to provide guidance for using TTFields in GBM during the COVID-19 pandemic. **PANEL DISCUSSION:** Topics discussed included support and delivery of TTFields during the COVID-19 pandemic, concomitant use of TTFields with chemotherapy, and any potential impact of TTFields on the immune system in an intrinsically immunosuppressed GBM population. Special consideration was given to TTFields' use in elderly patients and in combination with radiotherapy regimens (standard versus hypofractionated). Finally, we discussed the need to better capture COVID-19 positive brain tumor patients to analyze longitudinal outcomes and subtle changes in treatment decision-making during the pandemic. **EXPERT CONSENSUS:** TTFields is a portable home-use device which can be managed via telemedicine and safely used in GBM patients during the COVID-19 pandemic. TTFields has no known immunosuppressive effects and is a reliable treatment modality with a relatively favorable side-effect profile. This is important during a crisis where other treatment methods might be limited, especially for elderly patients and patients with multiple co-morbidities. It is too early to estimate the full impact of COVID-19 on the global healthcare system and on patient outcomes and strongly recommended the need to collaborate with existing cancer COVID-19 registries (i.e. CCC19, ESMO-CoCARE, etc.) to follow CNS tumor patients. These efforts would have implications in assessing lessons-learned from this crisis and future guideline development.

#### COVID-18. POTENTIAL TO HARNESS SARS-COV-2 NEUROTROPISM IN THE DELIVERY OF ONCOLYTIC VIROTHErapy FOR THE TREATMENT OF HIGH-GRADE GLIOMA

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**BACKGROUND:** High-grade gliomas (HGG) pose therapeutic challenges stemming from blood brain barrier, infiltrative growth, suppressed immune function, and tumor heterogeneity. Oncolytic viruses (OVs) are gaining traction for addressing these challenges. There is evidence that the SARS-CoV-2 glycoprotein spike binds the ACE-2 receptor in nasal epithelium and reaches the brainstem and thalamus via axonal transport through the olfactory pathway, making it an attractive candidate for OV therapy. Prior studies on chimerization of pathogenic virus-derived glycoprotein spikes with non-pathogenic strains exploit neurotropism of a wild-type virus while improving the safety profile of the resulting OV. We review, 1) the engineering of chimeric OVs used in the treatment of HGG; 2) potential for a novel chimeric virotherapy in which the SARS-CoV-2 glycoprotein spike can be used to deliver OV therapy intranasally; and 3) areas which warrant further investigation to develop this approach for clinical use. **METHODS:** We