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We declare no competing interests.

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An extraordinary World Encephalitis Day

The COVID-19 pandemic has led to the reconsideration not only of public health policies and health care provision, but also of the received wisdom on viral effects on the CNS.

At the start of the pandemic, no-one anticipated the large number of patients who would have neuroinflammatory complications as a result of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).1 It is now clear that non-vascular CNS disorders are common neurological complications of SARS-CoV-2 infection, and that patients with these complications often require admission to intensive care and invasive ventilation.^{2,3} In particular, encephalitis accounts for 5.6-13% of neurological manifestations,^{2,4} ranging from acute disseminated encephalomyelitis to limbic encephalitis.

Neuroimaging studies have shown that nearly half of patients with clinical evidence of encephalitis have MRI evidence of CNS inflammation.⁵ For some patients with SARS-CoV-2 infection, there are clear risk factors-eq, the RANBP2 mutation, which is associated with acute necrotising encephalopathy. Whereas, for the majority of patients, it is unpredictable who will have CNS inflammatory responses, and it is plausible that there is nothing particularly unique about SARS-CoV-2, but rather that, owing to the large number of infected people, rare complications are worryingly frequent.1

It is increasingly recognised that CNS inflammatory responses to SARS-CoV-2 range from typical encephalitis, with obvious evidence of inflammation on routine neuroimaging or CSF parameters, to severe encephalopathy, which has an as yet poorly understood inflammatory pathophysiology representing a spectrum of encephalitis.³

World Encephalitis Day, on Feb 22, 2021, will remind us of these patients and the impact of the pandemic on their lives. The theme of this year's World Encephalitis Day is "Lights, Camera, Action", with landmarks around the world, including Niagara Falls (Ontario, Canada) and the Danube bridges in Vienna (Austria), being lit red to raise awareness. Having reached more than 186 million people around the world in previous years, now in 2021, World Encephalitis Day seems more relevant than ever before.

Although the neuroscience community struggled to disentangle potential associations between the influenza pandemic of 1917 and encephalitis, the link between brain inflammation and SARS-CoV-2 is undoubtable.

Coordinated awareness days such as the World Encephalitis Day recognise patients' experiences, and are also a valuable opportunity for the neuroscience community to reflect on our own clinical assumptions and whether there might be scope for a paradigm nudge, if not yet a full shift. We declare no competing interests.

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