This first edition of 2021 arrives along with signs that the world is beginning to get to grips with COVID-19. Several vaccines have proven effective, strategies to reduce transmission are helping to varying degrees and we have a better understanding of how to manage the disorder. This has all happened at extraordinary speed, moving from a general approach using basic principles with interventions applied from knowledge of similar disorders, through clinical trials, to an increasing evidence-based series of interventions to improve outcome.

Many neurological disorders are sufficiently rare to make it difficult to get beyond using basic principles and treatment by analogy through to clinical trials. In such rare disorders it can help to discuss our learning from individual cases, recognising the limitations in the inferences drawn from them. David Bourke and Kelvin Woon describe a successful decompressive craniotomy in a patient with severe acute disseminated encephalomyelitis and raised intracranial pressure (page 53)—there is no directly relevant trial but first principles and analogy with the trials for craniotomy after stroke provide support. Jennifer McCombe and colleagues discuss a complicated set of decisions around oophorectomy in a young woman with unresponsive NMDA-receptor encephalitis with apparently normal pelvic imaging, which turned out to be falsely negative (page 57). We do have some trial evidence to support using peripheral nerve blocks for headache disorders. However, if our patients are to benefit from this therapy somebody needs to know how to do it. Linford Fernandes and colleagues provide a primer for giving the most commonly used injections (page 30) illustrated by videos of the techniques on our website.

The approach to managing many metabolic disorders usually develops from first principles, building on an understanding of the underlying biochemistry. A raised serum ammonia can provoke a metabolic encephalopathy. Once ammonia is identified as the cause, the question is why is it raised, and then what to do about it; Rick Meijer and colleagues discuss this on page 36. Mitochondrial disorders must first be considered if they are to be recognised. Mitochondrial neurogastrointestinal encephalopathy (MNGIE) is a challenging diagnosis and frequently misdiagnosed but has a typical tetrad: gastrointestinal dysmotility; progressive external ophthalmoplegia; demyelinating neuropathy and asymptomatic leukodystrophy. Simon Hammans discusses this syndrome on page 43, stressing the increasing importance of early diagnosis as potential novel treatments are in sight. Neuromuscular diseases can pose problems to anaesthetists when patients need an operation—Laurek R van den Berselaar and colleagues provide a handy summary to help us answer their questions (page 12).

Memory problems are very common in people with epilepsy, and so this topic is often raised in clinic. But do their memory problems relate to the medication, the seizures, the underlying pathology or to something else? Sallie Baxendale and Dominic Heaney discuss an approach building from first principles, combining their practical experience to develop a strategy for managing memory in the epilepsy clinic (page 23).

We have other cases to learn from: a case of myotonic dystrophy presenting as ventilatory failure (page 48), the bobble-headed doll syndrome (page 66), orthostatic hearing loss in spontaneous intracranial hypotension (page 61) and a practical illustration of the homunculus in a patient with a ‘cortical foot’ (page 73). It is chastening to read the neurological letter from Nepal (page 81), learning of the difficulties our colleagues there face in trying to deliver the best care for their patients, although in the most dramatic of landscapes.

An editorial in this issue argues for the retirement of something old and outdated, causing some consternation and self-reflection at our weekly editors’ meeting. Fortunately, there was nothing personal, but rather Arvind Chandrathева and colleagues make a convincing case to drop ‘vertebrobasilar insufficiency’ from the diagnostic lexicon (page 2). It is interesting how tenacious a plausible idea can be in the face of overwhelming evidence. Verteobasilar insufficiency, once quite ‘common’, became very rare the moment we better understood benign paroxysmal positional vertigo, but perhaps some never quite stopped believing that a case would appear.

As always, A Fo Ben finds stimulating material from other journals on page 89. A Fo Ben also runs the Practical Neurology Twitter account and would appreciate some help from an enthusiastic tech-savvy neurologist. We have hidden this advert here so only our most dedicated readers will find it: please contact the editors if you are interested.

Finally, Stephen Auger and colleagues provide a guide for neurologists on machine learning and artificial intelligence (page 4), what the terms mean and what we might achieve (in time). A recent analysis by the UK Office for National Statistics found that 45% of the occupations of those aged 20–29 years were at high risk of becoming automated. Reassuringly, the risk for medical practitioners is in the lowest category at 18%; there were no data presented for journal editors.