

Covid-19 and Paediatric Neurology

The current Covid-19 pandemic poses significant concerns for the children we look after and their families and many challenges for clinicians in continuing to deliver high quality care to our patients. The majority of our patients with neurological disorders are at no greater risk from Covid-19 than the general population and from experience in other countries children in general are not as severely affected as adults. However, there may be some exceptions to this in particular groups of patients and there will be alterations in the way we deliver care to the majority of patients during this pandemic.

It is essential that paediatric neurology services and advice continue to be available to patients and their families during this period and that they are not in any way discouraged from seeking medical advice.

It is particularly important that patients with disabilities know that they will have access to the care and support they need during this pandemic.

Specific high-risk groups

Some patients with neurological disorders will fall into a high-risk group who may potentially have a more severe infection with Covid-19. These would include:

- Any patient being treated with immunosuppressant medication
 - e.g. children treated with steroids for Duchenne Muscular Dystrophy, infantile spasms, ESES, Landau-Kleffner syndrome,
 - e.g. children with tuberous sclerosis complex being treated with the mTOR inhibitors everolimus or rapamycin
 - e.g. children with multiple sclerosis receiving immunosuppression
- Any patient who has bulbar or respiratory compromise because of coincident neuropathology
 - e.g. patients with cerebral palsy or progressive neurological diseases (neuromuscular diseases, mitochondrial disease, Batten's disease, progressive leukodystrophies etc)
- Any patient with co-morbidities which fulfil criteria for extremely vulnerable as defined by Public Health England
 - Long term respiratory condition e.g. severe asthma
 - Immunocompromised e.g. on treatment for malignancy
 - Haemodynamically significant and/or cyanotic heart disease
 - Chronic Kidney Disease stages 4, 5 or on dialysis

Management of existing patients with neurological disorders during the Covid-19 pandemic

It may be important during the pandemic to minimise in-person hospital visits to reduce the risk of infection for both patients, parents and staff. However, this is also a time during which patients and their families may be especially anxious. During this time, it will be essential to maintain contact with patients and their families through telemedicine and/or telephone consultations. We know from experiences in other countries that patients are less likely to present to hospital or contact neurology services but it is important that point of contact is available for advice. There is a real risk that patients do not take advice about their care and this could lead to harm.

We would advise:

- Ensure families have a point of contact for advice and reinforce that they should make contact if they have concerns about their child's neurological condition.
- Ensure patients are shielding who should be.
- Ensure patients have a regular supply of medications (but not stockpiling).
- Re-emphasising life-style issues e.g. the need for regular sleep, consistency of lifestyle routines, avoidance of recreational drugs and alcohol, and healthy eating and exercise.
- Avoiding unnecessary alterations in medication regimes that may de-stabilise control of neurological condition. E.g. in patients with epilepsy weaning or escalation of anti-epileptic drugs unless there is an obvious clinical need to do so.
- Avoid non-essential use of investigations that would necessitate visits to hospital.
- Highlight risks of particular symptoms of Covid-19 to patients who may be vulnerable and the management strategies for these e.g. risk of seizures in association with fevers in children with Dravet syndrome. These children should take regular anti-pyretics if they have fever associated with Covid-19 and it would be prudent to use paracetamol rather than NSAIDs as a first choice of anti-pyretic (as some anecdotal evidence that NSAIDs may exacerbate Covid-19 infection although the evidence for this is not strong).

Management of new patients during the Covid-19 pandemic

In many cases new patient consultations can be undertaken virtually. Many of our neurological conditions can be diagnosed on the basis of a good history and this can often be taken via telemedicine or telephone consultations. Videos taken by parents are helpful in making a diagnosis of unusual episodes. Where possible investigations should be deferred until such time that hospital attendance is felt to be safer. Prescriptions of new medications should be made through primary care where possible to avoid attendance at hospitals.

However, in some cases face-to face appointments may remain essential and there should still be provision to offer these if necessary. In particular it may be very difficult to determine the nature of movement disorders, complex developmental disorders or neuromuscular disease without direct observation of the child.

Self-care

We recognise that working in Paediatric Neurology/Neurodisability can be challenging in general. The current pandemic adds to the stress of the job and life and it is important to acknowledge this and use resources that will help build and maintain resilience. The BPNA mentor programme is available to support BPNA members – please contact us.

Useful Resources

<https://www.rcpch.ac.uk/resources/covid-19-guidance-paediatric-services>

<https://www.epns.info/covid-19-and-neurological-disorders/>

<https://www.ilae.org/patient-care/covid-19-and-epilepsy>

<https://smauk.org.uk/blog/information/coronavirus-covid-19-update>

<https://www.mssociety.org.uk/about-ms/treatments-and-therapies/disease-modifying-therapies/covid-19-coronavirus-and-ms>

https://www.theabn.org/page/covid19_response

<https://www.nhsemployers.org/covid19/health-safety-and-wellbeing>

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