

the real-world data that is currently being collected will answer this question.

Another factor to be considered is that immunosuppression may not only affect the clinical manifestation of COVID-19, but the natural history of SARS-CoV-2. A particular concern is whether or not patients on immunosuppression who are infected with SARS-CoV-2 will have increased viral replication and shedding, i.e. will they become superspreaders? I suspect yes. A recent case report of a woman with systemic lupus erythematosus (SLE) on long-term glucocorticoids and her familial cluster of COVID-19, suggest that the long-term use of glucocorticoids might cause atypical SARS-CoV-2 infections; i.e. a longer incubation period before developing COVID-19 and extra transmission of SARS-CoV-2.⁴

In light of the above the theoretical hazards posed by each DMT differ and, rather than imposing a blanket rule, decisions regarding treatment should be individualised and discussed with patients.⁵ For some patients having their active MS treated may be more important than the potential danger of being exposed to and acquiring a more severe COVID-19 infection. Any decision to start or continue an MS DMT during the COVID-19 pandemic will need to be taken carefully and will depend on the state of the COVID-19 pandemic and local circumstances.

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COVID-19 – ABN Update

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It is just over 100 days, as I write this now, since the World Health Organisation was first alerted to an outbreak of a novel respiratory virus. We are all familiar with the subsequent spread of the coronavirus, COVID-19 and the upheaval to our personal and professional lives. What has captured the headlines, inevitably so, is the number of deaths. The public health, epidemiology, and infectious disease specialists had the unenviable task of plotting national strategy based on incomplete data. Parallel to this clinicians have been desperately trying to learn about clinical course and complications of this virus, as different regions are affected at varying rates and times.

A pre-print on bioRxiv, now published in *JAMA Neurology* was the first major source of information that there were neurological features at presentation from Wuhan, China (Mao et al 2020). Some presenting features were nonspecific such as headache (13%) or dizziness (17%) however 2.8% had an acute cerebrovascular accident at presentation and 8.9% presented with peripheral nervous system symptoms – most notably impaired taste and smell. Outside of medical journals, (*Neurology Today*) there were reports from Northern Italy that neurological COVID-19 wards were opening, quoting Alessandro Pezzini as saying "... on the 18-bed unit, patients are being treated for stroke, delirium, epileptic seizures, and non-specific neurologic syndromes that look very much like encephalitis". Alessandro Padovini of Brescia noted that for some the neurological symptoms preceded the respiratory disease "... many of the patients on the neuro-COVID-19 unit initially presented with stroke, delirium, or encephalitis, and then developed respiratory distress." The most recent case series comes from the neuro-intensive care in France, who report 14% of those who are sick enough to need ICU have neurological features before intubation (Helms et al. 2020).

Severe neurological complications of COVID-19 have been reported. Haemorrhagic necrotising encephalopathy in a woman in her fifties (Poyiadji et al. 2020) and meningitis/encephalitis from Japan (with COVID-19 detected via PCR in CSF) (Moriguchi et al. 2020) are notable such cases. It is very hard to learn from anecdotes, which is why we need a national collaboration to identify the pattern and scope of these presentations; preferably rapidly.

In the UK we have set up CoroNerve, a collaborative initiative to describe the rare and severe neurological features of COVID-19. This initiative is led by Benedict Michael, Liverpool, Ian Galea, Southampton, Rhys Thomas, Newcastle, Rachel Kneen, Liverpool and Sarah Pett, UCL – with a great number of multi-disciplinary study group members. We are very fortunate to have partnered

with the ABN (Association of British Neurologists), BPNA (British Paediatric Neurological Association), BASP (British Association of Stroke Physicians), BNPA (British Neuro Psychiatry Association), and the NACCS (Neuro Anaesthesia and Critical Care Society). This is essential so that in the UK we have a coordinated response, we can rapidly compare cases that may present to different clinicians and so that there is no dual reporting of cases.

Although each of the five of us are seeing cases coming through our centres, we cannot do this alone and are really grateful for the support that we have received from the individual members of these societies to notify us of their cases. We then contact the clinicians and our admin support and clinical fellows help lessen the burden of reporting cases by helping them through the clinical reporting template. It has become clear from colleagues in the UK and overseas that we are seeing a number of unusual parainfectious features; but we also want to be well positioned to capture any post infectious consequences of COVID-19.

CoroNerve is a growing collaboration with international teams – but we can't do this without you. Thanks to all who have notified us so far! If you want to report a case, please either do so via the appropriate national society; such as RaDAR for the ABN – www.theabn.org/page/radar_7 There are two short forms that really only take a couple of minutes to complete.

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More than a number: the limitations of the Clinical Frailty Scale for patient escalation decision making in COVID-19

Abstract

The Clinical Frailty Scale (CFS) has been suggested as a tool to aid treatment escalation decisions for frontline clinicians during the COVID-19 pandemic. We discuss the concept of frailty and role of the CFS. We explore the limitations of the CFS in people with stable long term health conditions and suggest organisations implement the new guidance with caution. Training and guidance are available to help avoid poor decisions where the CFS is not appropriate.

Clinicians are used to making decisions around admission to ICU and cardiopulmonary resuscitation (CPR) based on the likelihood of patient recovery or survival, to an outcome that is acceptable to them. On the 20th March 2020, National Institute for Health and Care Excellence (NICE) released guidance advising clinicians to use the clinical frailty scale (CFS) to guide these decisions (Figure 1 below).⁴

Frailty is a term commonly used in geriatric medicine to describe the accumulation of deficits across several physiological systems that lead to a state of increased vulnerability to adverse health outcomes and poor recovery after a stressor event, such as infection.⁵ There are a number of models of frailty and tools to measure frailty. The CFS was devised as a simple clinical measure able to predict death and institutionalisation in older people.⁶ Its use has been validated in people over 65 years and helps identify those who would most benefit from comprehensive geriatric assessment. With time it has been adopted by other specialties to help guide decision making about complex interventions such as renal replacement therapy, transcatheter aortic valve implantation and emergency laparotomy. In the ICU setting, large observational studies have shown associations between high CFS scores and increased risk of extubation

The COVID-19 pandemic that emerged from China in December 2019 has now exceeded two million cases and caused over 140,000 deaths worldwide.¹ A severe complication of the SARS-CoV-2 infection is viral pneumonia, with 2.4% of patients requiring respiratory support in an intensive care unit (ICU).² Early data from the UK suggests there is a 66% mortality associated with mechanical ventilation.³ There is an increasing focus on early decision making regarding the most appropriate level of care for individuals. This is driven by the need to achieve the best outcome for individual patients, but also may be informed by concerns over limited critical care resources.

Clinical Frailty Scale*

1 Very Fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.

2 Well – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.

3 Managing Well – People whose **medical problems are well controlled**, but are **not regularly active** beyond routine walking.

4 Vulnerable – While **not dependent** on others for daily help, often **symptoms limit activities**. A common complaint is being “slowed up”, and/or being tired during the day.

5 Mildly Frail – These people often have **more evident slowing**, and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.

6 Moderately Frail – People need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.

7 Severely Frail – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).

8 Very Severely Frail – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

9 Terminally Ill – Approaching the end of life. This category applies to people with a **life expectancy <6 months**, who are **not otherwise evidently frail**.

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

* 1. Canadian Study on Health & Aging; Revised 2008.
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