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following criteria: (a) requiring medical intervention by a health-care professional; (b) leading to hospitalisation or increased level of care, or (c) prompting a face to face [ie, not just a telephone or electronic communication] evaluation⁸) might potentially be even higher. Why is this relevant? A drop in maternal haemoglobin post partum might not only affect the mother, but also the baby indirectly, and has been associated with difficulties in establishing breastfeeding in the infant.⁹

The study by Murarasu and colleagues⁵ addresses an important evidence gap in the field of antiphospholipid syndrome and serves as a crucial call to action for the urgent provision of high-quality prospective and interventional data. The study highlights the fact that, under current management strategies, both thrombotic and bleeding complications remain relatively high in pregnant patients with antiphospholipid syndrome. This stresses the importance of patient education and empowerment to react to symptoms related to complications during pregnancy and shows that pregnancy counselling and multidisciplinary follow-up before, during, and after pregnancy remains crucial. The data will hopefully inform future guidelines but, in the interim, physicians caring for these patients should be aware of the thrombotic and bleeding risk. The study might also provide valuable nuance for future updates of the existing current clinical guidelines.

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*Karen Schreiber, Fionnuala Ní Áinle
kschreiber@danskigthospital.dk

Danish Hospital for Rheumatic Diseases, University of Southern Denmark, 6400 Sønderborg, Denmark (KS); Institute of Regional Health Research (IRS), University of Southern Denmark, Odense, Denmark (KS); Thrombosis and Haemophilia, Guy's and St Thomas' NHS Foundation Trust, London, UK (KS); Rotunda Hospital, Dublin, Ireland (FNA); School of Medicine, University College Dublin, Dublin, Ireland (FNA)

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The impact of COVID-19 on care of early inflammatory arthritis in the UK

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In 2020, the COVID-19 pandemic brought an unprecedented change to rheumatology practice in the UK. There were massive shifts in working patterns of rheumatology teams, with many staff redeployed to other areas of clinical need. This, alongside huge pressures in primary care, had a substantial impact on usual care for patients being referred to rheumatology with suspected inflammatory arthritis.

In *The Lancet Rheumatology*, Mark Russell and colleagues¹ use the OpenSAFELY database to examine

new diagnostic codes for inflammatory arthritis in 2019–22 to examine the impact of the COVID-19 pandemic. OpenSAFELY is an open-source software platform developed for analysis of National Health Service (NHS) electronic health record data. It accesses records from the two largest providers of electronic health record software for general practitioners in England, allowing analysis of the primary care records of 58 million patients with links to other routine health-care data.

For OpenSAFELY see <https://opensafely.org>

Many of the authors of this study are also involved in the National Early Inflammatory Arthritis Audit (NEIAA).^{2,3} NEIAA collects data on referral and initial treatment of patients with inflammatory arthritis across the UK, but data collection was paused during the peak of the COVID-19 pandemic given extraordinary pressures on clinical staff. Therefore, use of OpenSAFELY provides the potential to gain insight into the impact of COVID-19 using routinely collected data that should be consistent in quality before, during, and after the pandemic period.

The first finding of this study is that there was a 20% decrease in new inflammatory arthritis diagnoses in the year beginning April, 2020. This decrease is in line with rheumatology data from other countries and other conditions in the UK.⁴⁻⁸ Considerably fewer people were reviewed for rheumatology problems in secondary care during the peak of the pandemic, possibly due to delays in referral from primary care as a consequence of the introduction of remote appointments. Patients might also have felt that their joint complaints were not a priority to seek medical advice at the peak of the pandemic.

Given the redeployment of clinical staff, additional delays between referral and rheumatology review would have been expected. This study, however, found the opposite, with a reduction in referral time seen during the pandemic compared with referral times before the pandemic (median 18 days [IQR 8–35] vs 21 days [9–41]). With clinical insight, this finding seems to make sense; although many routine new and follow-up appointments were cancelled in that period, urgent new appointments, which are prioritised for inflammatory arthritis and vasculitis, were maintained, and in some hospitals were the only face-to-face clinics running in rheumatology. Interestingly, Russell and colleagues report that 25% of initial rheumatology appointments were undertaken using telemedicine in the year commencing April, 2020 (compared with 0.3% before April, 2020), which might have also caused a delay in diagnosis, as an examination would typically be required to confirm the diagnosis before initiation of conventional synthetic disease-modifying antirheumatic drugs (DMARDs).

There were similar numbers of prescriptions issued for conventional synthetic DMARDs for patients diagnosed with inflammatory arthritis before and

during the pandemic, but the choice of DMARD appeared to be affected, with fewer prescriptions issued for methotrexate and leflunomide during the pandemic. This might relate to British Society for Rheumatology guidance shared in the early months of the pandemic which advised that “sulfasalazine and hydroxychloroquine may be more appropriate as they are immunomodulatory rather than immunosuppressive”.⁹ This guidance was subsequently superseded. There is also the potential benefit that hydroxychloroquine does not require regular blood monitoring, which was an issue in 2020 as many areas were struggling to safely deliver shared-care, and for several months problems were compounded by a national shortage of blood tubes in the NHS.

The most concerning finding of the study is the lack of rebound increase in referrals in the months following 2020. This highlights a potential cohort of patients who have been missed and might present at a later date. It will be important to understand from NEIAA data whether patients presenting in 2021 and 2022 have a longer duration of symptoms and whether there are any differences seen in their disease activity, work productivity, and function at presentation. These patients could represent a subgroup with milder disease who have delayed seeking help. However, it is also possible that there is a subgroup of patients presenting with more severe disease, as a result of the delay in diagnosis. This increase in severity could present more of a cost-burden to the NHS, with more rapid escalation onto high-cost drug therapies.

On a positive note, this study demonstrates the potential for routine data sources such as OpenSAFELY to audit care in the NHS beyond the COVID-19 pandemic. The authors highlight a good correlation with NEIAA outcomes but with no requirement for manual data collection and without high levels of missing data. The OpenSAFELY dataset currently limits analysis to health resource utilisation and diagnostic coding, but there is clearly potential for patient-reported outcomes to be collected in parallel with studies such as this if considered prospectively.

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Elizabeth MacPhie, *Laura C Coates
laura.coates@ndorms.ox.ac.uk

Lancashire and South Cumbria NHS Foundation Trust, Preston, UK (EM); Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford OX3 7LD, UK (LCC)

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Long COVID: defining the role of rheumatology in care and research

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The global pandemic of COVID-19 has had an impact on the profession of rheumatology from many perspectives, including its effects on our patients with immune-mediated conditions and immunocompromised states, the disruption of care pathways, and beyond. There also are lingering questions about how the next phase of the pandemic will evolve, with the continuing emergence of new viral variants posing a continuing threat to our patients. Beyond these formidable challenges is the uncertainty around the long-term effects of COVID-19—referred to as long COVID among other names—in the rheumatology patient population, and the role of the rheumatology practitioner in care of and research among this population. Given the current global impact of long COVID and our early stages of understanding of the condition, we pose a series of questions for the rheumatology profession, to stimulate reflection and discussion around how to address long COVID.

The first question involves the definition of long COVID. It is both surprising and disappointing that long COVID remains poorly defined. At the simplest level, long COVID is the state of not recovering completely following acute infection with SARS-CoV-2, the precise duration of which is unclear but is generally considered to be within a timeframe of 1–3 months.¹ Long COVID, in the context of this Comment, must be differentiated

from the broad umbrella of post-COVID-19 conditions. The term post-COVID-19 conditions describes all maladies occurring after the acute infection period, including those that are probably byproducts of critical illness that have clear, pathologically defined sequelae (such as cardiopulmonary scarring and vital organ infarction), as well as psychological stress typical of post-intensive care unit syndromes that was well recognised before COVID-19. We define long COVID as the sequelae generally experienced after mild to moderate COVID-19, most often characterised by a mixture of symptoms—predominantly fatigue, neurocognitive dysfunction, breathlessness, and pain—that often occur with a waxing and waning clinical course and cannot be explained by an alternative diagnosis.

Another question is whether long COVID is unique from other syndromes that occur after acute infectious illness. We and others contend that there should be little surprise at the emergence of long COVID, because similar syndromes have been described after numerous infectious illnesses.² We also argue that many, but not all, of these post-infectious syndromes (including myalgic encephalomyelitis, which bears strong similarities to long COVID³) remain largely unexplained and represent a collective of syndromes. Finally, until now, these disorders have been understudied and are