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LETTER TO THE EDITOR

"Living with COVID"—implications for immunosuppressed and immunocompromised

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The UK Government announced its "Living With COVID" plan to remove the remaining legal restrictions while safeguarding people most vulnerable to COVID-19 and maintaining resilience on 21 February 2022 [1]. A recent significant drop in COVID-19 infections has been cited as the reasoning behind this decision. The easing of these restrictions began in July 2021, with most legal limits on social contact being removed and the final closed sectors of the economy, including sports stadiums and nightclubs, reopened. This has raised concern in certain quarters, especially among people with compromised immunity and a clinical risk group [2]. Many people are worried that limiting COVID-19 testing and isolation too soon would be detrimental. Patients undergoing treatment for cancer and those suffering from autoimmune diseases who are taking immunosuppressive drugs are especially vulnerable, with at least 500,000 people in England deemed immunocompromised as a result [3]. Current evidence suggests that those who are immunosuppressed and immunocompromised may not receive the same level of protection from the COVID-19 vaccinations as the general population, compounding the problem [4]. Protection of vulnerable children, e.g. cystic fibrosis under the age of 5 years, who remain unvaccinated is still unclear and a source of concern for parents.

Among immunocompromised and immunosuppressed patients with systemic autoimmune rheumatic diseases (SARD), a substantially higher risk of COVID-19 infection or reinfection is possible when rituximab and corticosteroids are used. A study described that those treated with anti-CD20 therapy, including rituximab and ocrelizumab, are at a considerably increased risk of developing severe outcomes from COVID-19, with risk ratios ranging from 1.7 to 5.5 being reported [5]. This has been a cause of considerable anxiety as the protective effect of COVID-19 vaccination is probably compromised by concurrently administered biologic drugs such as rituximab, hindering the most viable strategy to fight this pandemic [6]. More recently, prednisone > 7.5 mg/day was negatively related to the presence of neutralising antibodies following COVID-19 vaccination in patients with rheumatoid arthritis [7].

Although COVID-19 reinfections are uncommon, as immunity from SARS-CoV-2 vaccinations wears off, immunocompromised individuals are more likely to contract COVID-19 [8]. Furthermore, given the vaccine inefficiency in this population, paired with the emergence of new COVID-19 variants, the risk of contracting this disease is increased. The most notable variant of 2021 was the globally dominant variant D614G, which possessed significantly higher transmissibility without increasing disease severity. Since then, multiple other variants have been described, with these numbers expected to rise further [9]. It is also true that many nations have not fully vaccinated their populations, which will add additional fears for vulnerable patients owing to international travel and a lack of barriers such as facemasks. A recent study demonstrated that if an uninfected individual is exposed to someone who has SARS-CoV-2

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infection while wearing a mask, the uninfected person's risk of contracting the infection is reduced by half [10].

Even though no definitive solution has emerged to eradicate the COVID-19, the mass information currently available must be supplemented with factual data. Consequently, strategies can be undertaken to reassure patients based on their clinical risk during the implementation of "living with COVID plan" in the UK and the wider world. A shared decision-making process, guidance on the possibility of additional booster programmes, an appraisal of the role of regular monitoring of antibody titres in such patients and enhanced guidelines from rheumatology societies may be the way forward. This will reassure the patients and alleviate their anxiety and concerns.

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Declarations

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