



Letter to the Editor (Other)

Life after tocilizumab given for giant cell arteritis: a patient survey and argument for re-treatment

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Key message

- Tocilizumab retreatment should be an option for GCA relapse after tocilizumab cessation.

DEAR EDITOR, A recent study (TOC STOP) of 336 patients with GCA living in England, who had completed a course of tocilizumab, showed that up to one-third relapsed within one year of stopping, and up to half relapsed within two years [1]. The National Health Service in England doesn't currently allow repeat treatment with tocilizumab for GCA patients who relapse [2]. We wanted to find out about the personal experiences of PMRGCAuk Society members with GCA living in England who had completed a course of treatment with tocilizumab.

We therefore created a short survey which could be accessed via a web-link. The Health Research Authority decision tool confirmed that National Health Service research ethics committee approval was not required because patients were identified from the charity's contact list and website. In December 2023 we emailed the web-link to all PMRGCAuk members with GCA and posted it on the PMRGCAuk patient group section of the HealthUnlocked website asking for experiences we could share with National Health Service funding bodies. We asked three open questions, 'What was it like being on tocilizumab; what has happened to your GCA and how have you felt since coming off tocilizumab; and would you like access to more tocilizumab either now or in the future?'. All responses were grouped into themes to create simple statistics, and free-text responses from all patients who had relapsed after tocilizumab cessation were selected to illustrate the patient experience. All patients that completed the survey consented for their data to be used anonymously; those included in Table 1 consented for their free-text responses to be published and approved the final manuscript.

Sixteen people responded to the survey. Their responses confirmed that they had all completed a course of tocilizumab for

GCA and did not have access to retreatment. Thirteen of 16 had a positive experience on tocilizumab therapy, with no relapses and no reported side effects of the drug. Eight of 16 experienced GCA relapse after stopping tocilizumab (Table 1). Three of these relapses would be classified as major relapses defined by EULAR guidelines [3]. Five of 16 reported side effects of treatment, such as prednisolone and conventional synthetic DMARDs (csDMARDs), that were given for GCA after tocilizumab cessation. Fifteen of 16 wanted access to more tocilizumab either now or in the future. All who relapsed after stopping tocilizumab wanted access to retreatment (Table 1).

The number of respondents was small and likely not representative of all GCA patients treated with tocilizumab in England, and the survey questions were open and broad in nature. Nonetheless, the results were remarkably similar to TOC STOP [1]: tocilizumab was effective in >80%; half relapsed after stopping tocilizumab; and one-third of relapsers described major relapse. Their experience of tocilizumab was largely positive, whilst experience of relapse after tocilizumab cessation was universally negative, due to recurrent GCA symptoms, need for higher prednisolone dosing, fear of long-term consequences of active disease, and inefficacy of csDMARDs compared with tocilizumab. All those who had relapsed desired access to retreatment, which has been shown in observational studies to quickly recapture GCA remission [4].

In 2018, The National Institute of Health and Care Excellence (NICE) published a Technology Appraisal on tocilizumab for GCA [TA518] [2], based on evidence submitted by Roche Pharmaceuticals, largely from the GiACTA trial [5]. Roche proposed, based on clinical and patient expert opinion, that up to 1 year of tocilizumab treatment would be sufficient to sustain remission in the longer term. At the time the TA518 committee was concerned that this evidence was only based on case reports and that most included no follow-up details. However, both the clinical and patient experts agreed that many patients were likely to need <1 year of tocilizumab to achieve sustained remission, and that the 1-year stopping rule was acceptable [2].

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Table 1. Survey responses from individuals who reported GCA relapse after tocilizumab cessation

Patient	What was it like being on tocilizumab?	What has happened to your GCA and how have you felt since coming off tocilizumab?	Would you like to have access to more tocilizumab either now or in the future, and why?
1	It took a few weeks to kick in but I felt so much better when it did, it's honestly the only thing that's helped me.	It's returned I have bouts of GCA again.	Yes, because it's the only treatment that helped.
2	My whole wellbeing improved. I had faith in this treatment and was grateful for the time I was on it. I wished it would continue but I was aware of the constraints in its use.	I have had two relapses when my inflammation markers were raised and I had to increase the prednisone dosage. Following this I began a very slow reduction of prednisolone. On the second relapse, I felt really poorly, my mobility was seriously limited and had to once again increase the prednisolone dose.	Most certainly YES. According to my consultant, they are all in agreement that tocilizumab is the right course of treatment for me and she is trying very hard to get this approved but finding it very difficult to get a positive response.
3	Fine.	Inflammation increased as shown on my PET scan.	Yes. I need help to reduce my steroids as I cannot tolerate DMARDs.
4	I tolerated tocilizumab very well. It took 2-3 months to kick in whilst reducing prednisolone dose. I felt very good on it and my energy level improved dramatically.	6 months after finishing the 12-month course I had a relapse affecting my eyes, jaw and headaches.	Yes, as I am severely allergic to DMARD drugs and unable to tolerate them, resulting in hospital treatment. This means there is only prednisolone to treat my condition.
5	Having had 6 months of cyclophosphamide, and high-dose steroids which had me feeling really weakened, ill and anxious that my GCA symptoms were still not controlled, I was relieved that tocilizumab fairly quickly resolved my symptoms. I felt confident and relieved that at last something was working and working well.	I have tried several DMARD drugs, and for various reasons have had to stop them. I'm currently on mycophenolate mofetil but because of deranged liver enzymes, I have had to intermittently stop taking this, resulting in increasing GCA symptoms and the need to increase steroid dose again.	Most definitely.
6	I was able to reduce my prednisolone dosage from 20 mg in February 2021 to 4.5 mg in August 2022.	Within a month my symptoms started to return to the point by October 2022 I was up to 15 mg prednisolone again. It is now December 2023 and I am still on 9 mg so progress is not great.	I would love to restart tocilizumab, if at all possible, in the hope that I can reduce my prednisolone dose.
7	I seemed to be getting my life back ... far less fatigue, fleeting symptoms and better able to manage everyday type illness like colds. I was able to start reducing steroids below my previous threshold. A weekly injection was easy to manage. After struggling for five years on steroids alone, tocilizumab offered me the option of being steroid-free.	I needed to go on methotrexate because of a major flare, which does not seem to have the same beneficial effects as tocilizumab in its ability to control symptoms at a lower dose of steroids. I have now been diagnosed with steroid-induced pre-type two diabetes and adrenal insufficiency.	Yes. I am now steroid-dependent. On tocilizumab, I think I would not be facing the problems I am having now. Also, the current/future demands I will have to make on health and social care services would be much less. I do not understand why a one-year prescription of tocilizumab is applied to GCA treatment when it is not applied to other illnesses, particularly as the damage suffered by steroids is already known.
8	I was pretty stable on tocilizumab with no major flares.	I stopped tocilizumab in February 2022, after my one-year allowance ended, and have had several flares since then. I had two strokes later in 2022 that are thought to have been linked to the large vessel vasculitis I have. I have had severe fatigue impacting majorly on my quality of life as well as night sweats and weight loss. I have had to give up work. I had another FDG PET CT in November 2023 and still have inflammation in my aorta, a major concern.	I certainly would. This is the only treatment for LVV/GCA with proven efficacy.

However, there is accumulating evidence, from TOC STOP and other observational studies from around the world [4, 6, 7] that 1 year of treatment is for a substantial proportion of patients not ‘enough to sustain remission in the longer term’ as was originally assumed. Relapse often does not occur immediately after tocilizumab cessation, as might have been presumed from the original data. We believe that there is now a strong case to remove the NICE TA518 stipulation that patients prescribed tocilizumab for GCA should ‘not have already had tocilizumab’ [2]. This would ensure that the 50% of patients who relapse after a period of time following tocilizumab cessation are not disadvantaged compared with new starters. This approach would preserve the 1-year stopping rule and therefore, based on current evidence, not prolong treatment unnecessarily for the 50% of patients who may never relapse again. We are aware of several specialist rheumatology centres in England that have obtained local approval to retreat patients who relapse after stopping tocilizumab, but this will inevitably lead to inequity which is against the ethos of specialized commissioning. Our small survey provides evidence for the patient's perspective on the current situation and the need for policy change.

Data availability

The data underlying this article will be shared on reasonable request to the corresponding author.

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References

1. Quick V, Abusalameh M, Ahmed S *et al.*; “TOC STOP”. Relapse after cessation of weekly tocilizumab for giant cell arteritis: a multi-centre service evaluation in England. *Rheumatology (Oxford)* 2023; kead604. doi: [10.1093/rheumatology/kead604](https://doi.org/10.1093/rheumatology/kead604).
2. Nice.org.uk. Tocilizumab for treating giant cell arteritis, NICE technology appraisal guidance. 2018. <https://www.nice.org.uk/guidance/ta518> (13 January 2024, date last accessed).
3. Hellmich B, Agueda A, Monti S *et al.* 2018 Update of the EULAR recommendations for the management of large vessel vasculitis. *Ann Rheum Dis* 2020;79:19–30.
4. Stone JH, Han J, Aringer M *et al.*; GiACTA Investigators. Long term effect of tocilizumab in patients with giant cell arteritis: open label phase of the Giant Cell Arteritis Actemra (GiACTA) trial. *Lancet Rheumatol* 2021;3:E328–36.
5. Stone JH, Tuckwell K, Dimonaco S *et al.* Trial of tocilizumab in giant-cell arteritis. *N Engl J Med* 2017;377:317–28.
6. Matza MA, Dagaincourt N, Mohan SV *et al.* Outcomes during and after long-term tocilizumab treatment in patients with giant cell arteritis. *RMD Open* 2023;9:e002923.
7. Samec MJ, Rakholiya J, Langenfeld H *et al.* Relapse risk and safety of long-term tocilizumab use among patients with giant cell arteritis: a single-enterprise cohort study. *J Rheumatol* 2023;50:1310–7.