

Glucocorticoid Tapering in Vasculitis

By Arielle Mendel, MD, FRCPC, MSc, on behalf of CanVasc

Treatment of the systemic vasculitides usually requires initial high-dose glucocorticoids (GC), which must be tapered over time to avoid toxicity. Recommendations suggest tapering to 15-20 mg prednisone per day within 2-3 months of therapy in giant cell arteritis (GCA)^{1,2} and ANCA-associated vasculitis (AAV).³ The recently published PEXIVAS trial demonstrated that, in severe granulomatosis with polyangiitis (GPA) and microscopic polyangiitis (MPA), a faster, “reduced-dose” GC tapering protocol (target 7.5-12.5 mg prednisone daily by 3 months), was non-inferior to a “standard” taper (target 15-25 mg daily by 3 months) in terms of global and renal survival, with a lower risk of serious infections.⁴

The purpose of this Joint Count survey was to determine how Canadian rheumatologists taper prednisone in GCA and AAV, and how many have adopted a “reduced dose”⁴ tapering strategy in AAV.

Seventy-one Canadian rheumatologists and trainees completed the survey (13% response rate). The majority worked in an academic setting (47%), while 32% worked in the community and 20% in both. Most (73%) have practiced for ≥5 years, and half (49%) saw patients with vasculitis at least once weekly.

The survey presented clinical scenarios of GC tapering in GCA and GPA (refer to the panel on the right). For the GCA scenario, most (76%) tapered prednisone to reach the recommended dose of 15-20 mg daily by 3 months^{1,2} and the remainder tapered more slowly. For the GPA scenario, most (85%) tapered prednisone in a similar manner to CanVasc recommendations³ (67%) or following a “reduced-dose” (PEXIVAS)⁴ regimen (18%), while 15% tapered more slowly.

The fact that only a minority of physicians have started to taper GC in GPA/MPA according to the “reduced-dose” PEXIVAS regimen⁴ may be due to the recency of the trials’ publication and/or concern that the study results may not be generalizable to all severe AAV subgroups. Indeed, respondents ranked “managing the risk of disease flare” as the most challenging aspect of GC tapering in vasculitis. The proportion choosing the “reduced-dose” PEXIVAS vs. other tapering regimens in the GPA scenario did not differ significantly according to practice setting (academic vs. all others), clinical experience (≥ 5 or <5 years in practice), or frequency of seeing patients with vasculitis (at least once weekly vs. less often).

The risk of GC-related harm increases with cumulative GC dose and duration,^{5,6} and following a GC tapering

Joint Count Survey:

Clinical Scenarios of GC Tapering in Vasculitis

Your patient started prednisone 60 mg/day 2 weeks ago for newly diagnosed GCA. Now, symptoms, signs, and laboratory parameters have normalized. How would you proceed with prednisone tapering?

- Continue 60 mg prednisone for another 2 weeks, then taper by 5 mg every 2 weeks
- Taper by 10 mg every 2 weeks until 20 mg, then 2.5-5 mg every 2 weeks
- Taper by 5 mg every 2 weeks
- Other _____

Your patient started high-dose prednisone and cyclophosphamide 1 month ago for PR3+ ANCA vasculitis with pulmonary-renal syndrome. He has now tapered to 50 mg of prednisone/day for the past 2 weeks. Symptoms and signs of active vasculitis have resolved. His creatinine peaked at 300 µmol/L and is now 120 µmol/L. How would you proceed with prednisone tapering?

- Taper by 10 mg every 2 weeks until 20 mg, then by 5 mg every 2 weeks until 5 mg
- Taper to 25 mg now for the next 2 weeks, then taper by 2.5-5 mg every 2 weeks until 5 mg
- Taper by 5 mg every 2 weeks until on 5 mg
- Other _____

schedule is one strategy for minimizing toxicity. The soon-to-be published updated CanVasc recommendations for management of AAV advocate for timely protocolized GC tapering, acknowledging the potential need for modifications according to patients’ clinical status.

The results of this survey are reassuring in that most clinicians taper GC in vasculitis according to recommendations. CanVasc would like to thank everyone who participated in this edition of the Joint Count Survey!

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References

1. Dasgupta B, Borg FA, Hassan N, et al. BSR and BHRP guidelines for the management of giant cell arteritis. *Rheumatology (Oxford)* 2010; 49(8):1594-7. doi: 10.1093/rheumatology/keq039a [published Online First: 2010/04/08]
2. Hellmich B, Agueda A, Monti S, et al. 2018 Update of the EULAR recommendations for the management of large vessel vasculitis. *Ann Rheum Dis* 2019 doi: 10.1136/annrheumdis-2019-215672 [published Online First: 2019/07/05]
3. McGeoch L, Twilt M, Famosca L, et al. CanVasc Recommendations for the Management of Antineutrophil Cytoplasm Antibody-associated Vasculitides. *J Rheumatol* 2016; 43(1):97-120. doi: 10.3899/jrheum.150376
4. Walsh M, Merkel PA, Peh CA, et al. Plasma Exchange and Glucocorticoids in Severe ANCA-Associated Vasculitis. *N Engl J Med* 2020; 382(7):622-31. doi: 10.1056/NEJMoa1803537 [published Online First: 2020/02/14]
5. Gale S, Wilson JC, Chia J, et al. Risk Associated with Cumulative Oral Glucocorticoid Use in Patients with Giant Cell Arteritis in Real-World Databases from the USA and UK. *Rheumatol Ther* 2018 doi: 10.1007/s40744-018-0112-8.
6. Robson J, Doll H, Suppiah R, et al. Glucocorticoid treatment and damage in the anti-neutrophil cytoplasm antibody-associated vasculitides: long-term data from the European Vasculitis Study Group trials. *Rheumatology (Oxford)* 2015; 54(3):471-81. doi: 10.1093/rheumatology/keu366