

Treatment recommendations for active severe, or active nonsevere GPA/MPA



These are recommendations written by a group of doctors and patients based on research studies* for people with a new active diagnosis of GPA or MPA vasculitis. They are for “remission induction,” which means getting to a place where there are no active symptoms and no new damage to the body from vasculitis.

These recommendations suggest the best treatment for most people, but your individual situation may be different and might mean you need a different treatment. Talk to your doctor about what treatment is best for you.

What is vasculitis?

Vasculitis: A group of conditions that involves inflammation (swelling) of the blood vessels. ANCA-associated vasculitis (AAV) is a group of disorders that include:

- **GPA:** A type of vasculitis that affects small to medium-sized blood vessels. It can affect the nose, sinuses, throat, lungs, and kidneys.
- **MPA:** A type of vasculitis that mostly affects small to medium-sized blood vessels. It can affect the kidneys, lungs, nerves, skin, and joints.

Active disease: New, ongoing, or worsening signs or symptoms.

Severe disease: Symptoms that may cause death or organ failure.

Nonsevere disease: Symptoms not likely to cause death or organ failure.



Healthy blood vessel



Inflamed blood vessel

Treatment recommendations for active GPA/MPA

If you have active, severe GPA/MPA, we recommend:

→ Use rituximab over cyclophosphamide

- Why? Studies have shown that rituximab works as well as cyclophosphamide and has fewer and less serious side effects.

→ Use a lower-dose prednisone regimen over a standard-dose prednisone regimen

- Why?
 - A recent study showed that a lower-dose prednisone regimen has the same benefit as a standard-dose.
 - Lowering the amount of prednisone can help avoid side effects and lessen the damage from using prednisone for a long time.

→ Use either IV pulse prednisone or high-dose oral prednisone as a part of initial therapy

- Why? We recommend either because there are no studies that compare how well they work.

If you have active, nonsevere GPA/MPA, we recommend:

→ Use methotrexate over cyclophosphamide or rituximab

- Why?
 - Methotrexate is less likely to cause serious side effects than cyclophosphamide.
 - We know more about how methotrexate works in people with active, nonsevere GPA/MPA than we do about rituximab.

- When **might** I take rituximab over methotrexate?
 - If you have liver or kidney damage.
 - If your GPA/MPA gets worse when taking methotrexate.
 - If you have trouble taking your medicine a certain way, such as by mouth.

➔ Use methotrexate and prednisone over:

- Only prednisone with no methotrexate
- Azathioprine and prednisone
- Mycophenolate mofetil and prednisone
- Trimethoprim/sulfamethoxazole and prednisone
- Why?
 - Prednisone alone can mean you need a higher dose, which can cause negative side effects. Methotrexate with prednisone can lower these side effects by lowering the amount of prednisone.
 - Methotrexate is better studied than azathioprine, mycophenolate mofetil, or trimethoprim/sulfamethoxazole.
 - Some conditions make it hard for people to take azathioprine, such as total thiopurine S-methyltransferase deficiency (TPMT) or high-risk TPMT and/or NUDT15 genotypes.
- When would I **not** use methotrexate and prednisone?
 - If you have moderate to severe kidney damage, liver damage, or are pregnant.
 - We recommend azathioprine if you:
 - Are pregnant
 - Can't take methotrexate or mycophenolate mofetil



*Chung, S.A., Langford, C.A., Maz, M., et al. 2021 American College of Rheumatology/Vasculitis Foundation Guideline for the Management of Antineutrophil Cytoplasmic Antibody–Associated Vasculitis. *Arthritis Rheumatol*, 73: 1366-1383. <https://doi.org/10.1002/art.41773> You can find the full ACR/VF recommendations at www.vasculitisfoundation.org.



Health terms

- **Azathioprine:** An immunosuppressant. Lowers inflammation (swelling) in the body.
- **Cyclophosphamide:** An immunosuppressant. Lowers inflammation (swelling) in the body.
- **Immunosuppressant:** Lowers the body's immune response to stop the immune system from causing inflammation (swelling) and damaging the body.
- **Methotrexate:** An immunosuppressant. Lowers inflammation (swelling) in the body.
- **Mycophenolate mofetil:** An immunosuppressant. Lowers inflammation (swelling) in the body.
- **Prednisone:** Lowers inflammation (swelling) in the body, and can be given as:
 - **IV pulse** – A tube into a vein as an IV
 - **Oral** – A pill by mouth
- **Rituximab:** Lowers the number of B cells (white blood cells) to lower inflammation (swelling).
- **Thiopurine S-methyltransferase (TPMT) deficiency:** A condition in which the body can't break down medicines called thiopurines, which treat some autoimmune conditions. People with TPMT deficiency have a higher chance of serious side effects from thiopurines.
- **TPMT and NUDT15 genotypes:** Changes in the TPMT and NUDT15 genes that can affect how the body breaks down thiopurines.
- **Trimethoprim/sulfamethoxazole:** 2 medicines taken together that kill bacteria or fungi that cause infections.