

1

Diagnosis of lupus nephritis

Early diagnosis and timely treatment of active lupus nephritis are important to preserve nephrons. Changes in kidney function or proteinuria based on serial measurements may suggest lupus nephritis (LN), and this can be confirmed by kidney biopsy.

2

Antimalarial therapy

Hydroxychloroquine is recommended for all patients with LN if there are no contraindications.

3

Class I/II lupus nephritis

Immunosuppressive therapy in patients with Class I/II LN should be guided by extrarenal disease manifestations unless the patients have nephrotic syndrome due to lupus podocytopathy, which is managed as minimal change disease.

4

Initial immunosuppression for active Class III/IV lupus nephritis

The initial treatment of active proliferative (\pm membranous) LN is glucocorticoids plus either mycophenolate mofetil or low-dose (Euro-Lupus) intravenous cyclophosphamide. (Figure 1)

5

Glucocorticoid dosing

Although glucocorticoids have generally been given in high doses for LN, emerging data suggest that lower doses may be equally effective but with fewer short- and long-term toxicities.

6

Long-term immunosuppression for Class III/IV lupus nephritis

Following initial therapy of proliferative LN, mycophenolate mofetil is the preferred immunosuppressive and should be continued for at least 36 months. (Figure 2)

7

Class V lupus nephritis

Class V lupus nephritis is managed with RAS blockade, blood pressure optimization, and hydroxychloroquine, and the addition of immunosuppression in patients who develop nephrotic range proteinuria.

8

Unsatisfactory response to treatment

Unsatisfactory treatment responses can be due to non-adherence, inadequate immunosuppressant dosing, or significant chronic kidney damage that preclude complete resolution of kidney abnormalities. Patients in whom these factors are excluded may have treatment-resistant LN. (Figure 3)

9

End stage kidney disease

Kidney transplantation is the preferred form of kidney replacement therapy for LN patients who develop end-stage kidney disease.

10

Pregnancy in patients with lupus nephritis

Good pregnancy outcomes require pre-pregnancy counselling and planning. Pregnancy should be avoided when LN is active or when patients are exposed to potentially teratogenic medications.

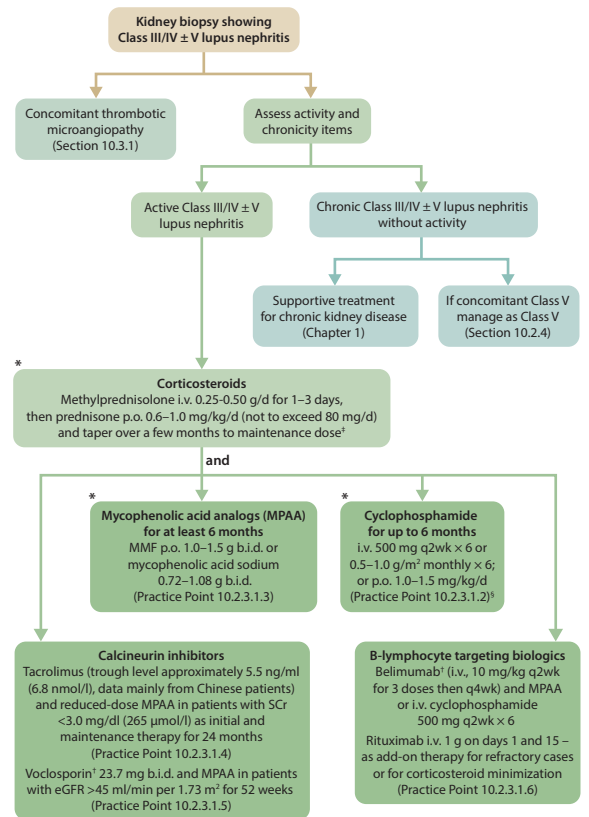


Figure 1

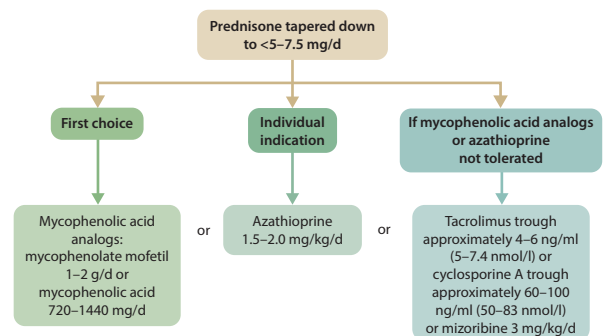


Figure 2

1	Verify adherence to treatment
2	Ensure adequate dosing of immunosuppressive medications by measuring plasma drug levels if applicable or available (check mycophenolic acid level if on mycophenolic acid analogs/check infusion records if on cyclophosphamide)
3	Repeat biopsy if concern for chronicity or other diagnosis (e.g., thrombotic microangiopathy)
4	Consider switching to an alternative first-line regimen when there is persistent disease activity (mycophenolic acid analogs to cyclophosphamide-based regimen or vice versa)
5	Consider the following in patients refractory to first-line treatment regimens: <ul style="list-style-type: none"> • Combined mycophenolic acid analogs and calcineurin inhibitor therapy, or • Addition of rituximab or other biologic therapies • Extended course of i.v. pulse cyclophosphamide

Figure 3