EXTRACORPOREAL NEPHROLOGY GROUP [ECNG]

LUPUS RENAL FLARE

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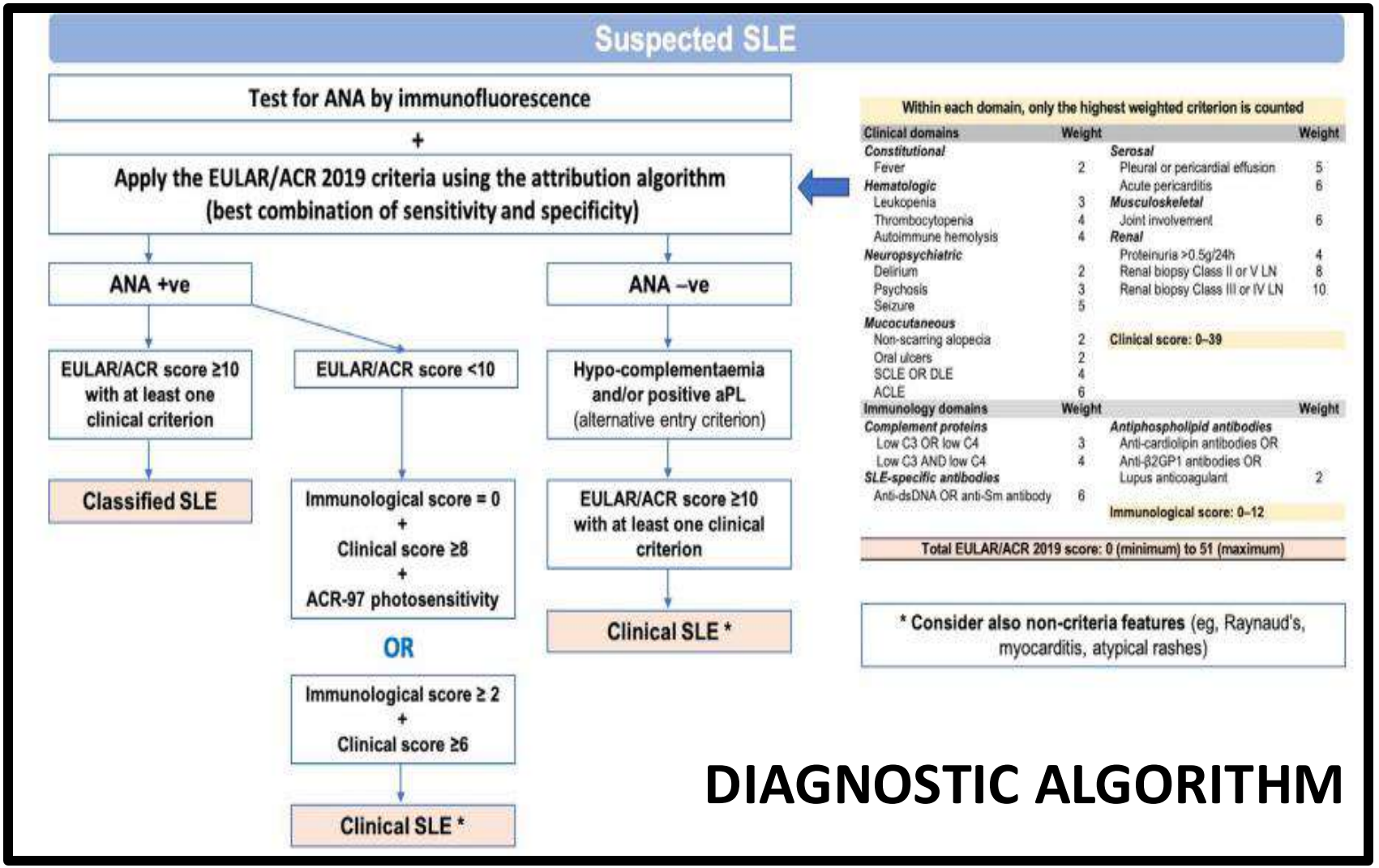
INTRODUCTION

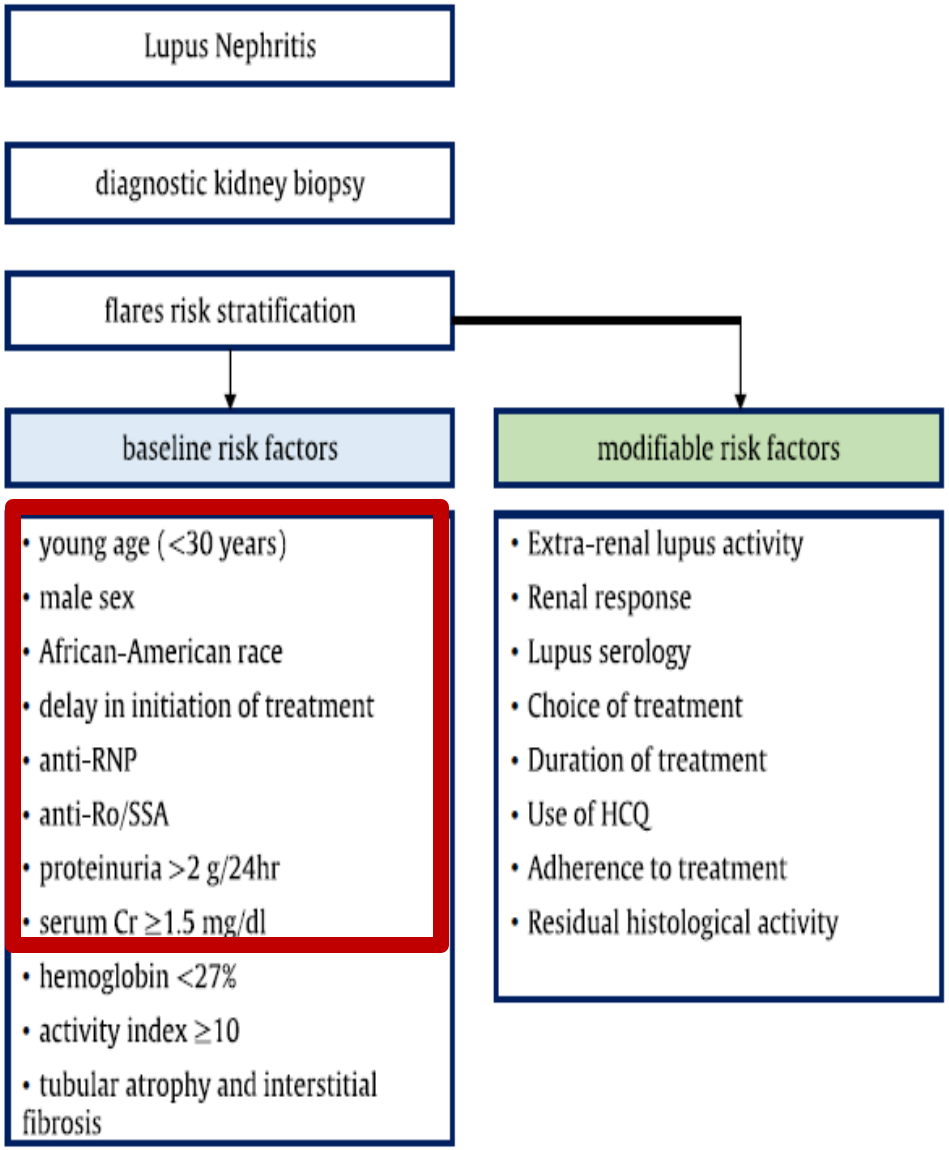
1. 30-50% patients relapse .Every flare causes nephron loss. Repeated flares increase CKD.
2. Combining anti –ds DNA ,C3,C4 and anti –C1q improves prediction of proliferative renal flares.
3. Higher activity index on repeat renal biopsy is indicative of future renal flare .
4. Elevated urinary biomarkers [MCP-1 CD 163,adiponectinPFR , aVCAM-1] predicts future renal flares despite clinical remission.
5. Renal biopsy indicated diagnostic uncertainty , unexplained deterioration ,when need of escalation of immunosuppression.



- A negative ANA test cannot rule out SLE diagnosis
- Upto 20% of patients may be negative (true or false negative) at various stages of the disease

Fanouriakis A, Tziolos N, Bertsias G, *et al*
Update on the diagnosis and management of systemic lupus erythematosus
Annals of the Rheumatic Diseases 2021;**80:**14-25.

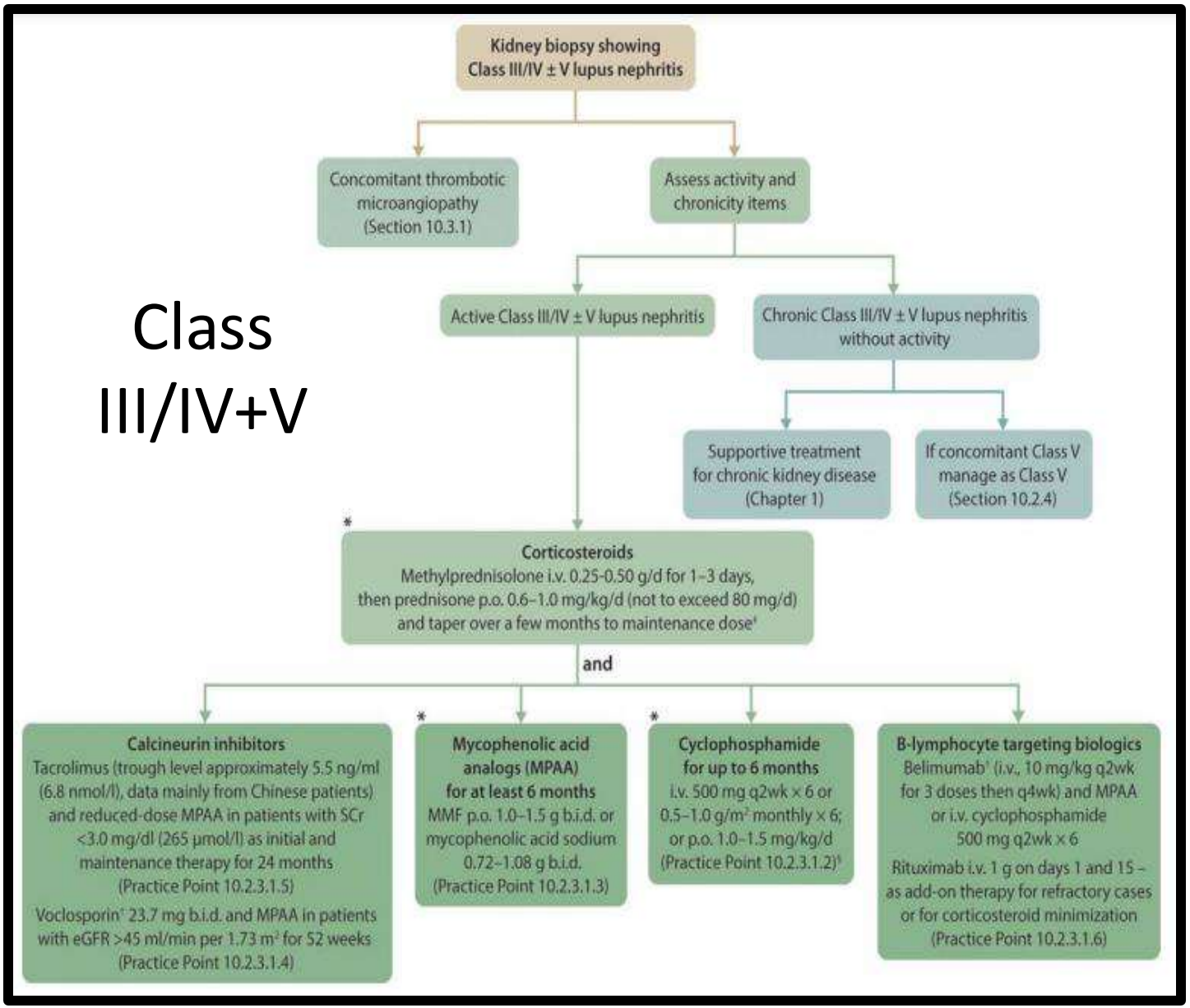
RISK FACTORS



Banos A, Bertsias G. Curr Rheumatol Rep. 2023;25:183–191

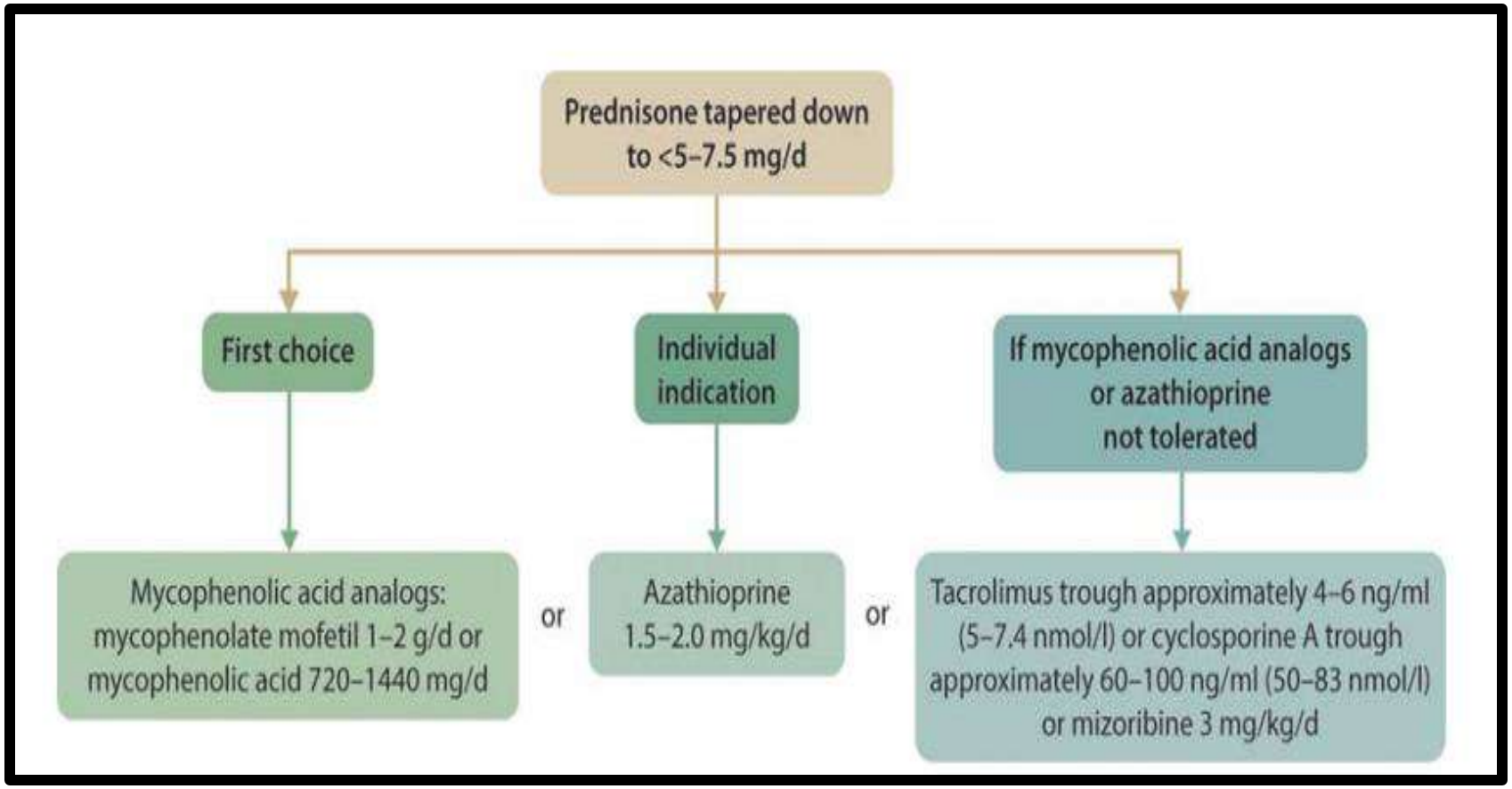
TREATMENT

Class III/IV+V



KDIGO Lupus Nephritis Work Group. Kidney Int. 2024;105(1S):S1–S69

MAINTAINENECE THERAPY



KDIGO Lupus Nephritis Work Group. Kidney Int. 2024;105(1S):S1–S69

Recurrent Flare vs. Refractory Disease: A Critical Distinction

Evaluation Checkpoint

Recurrent Flare

Definition: Re-emergence of clinical/histological activity after a period of documented remission.

Action: Re-induce based on prior response, switch drug classes, or add novel agents.

Refractory Disease

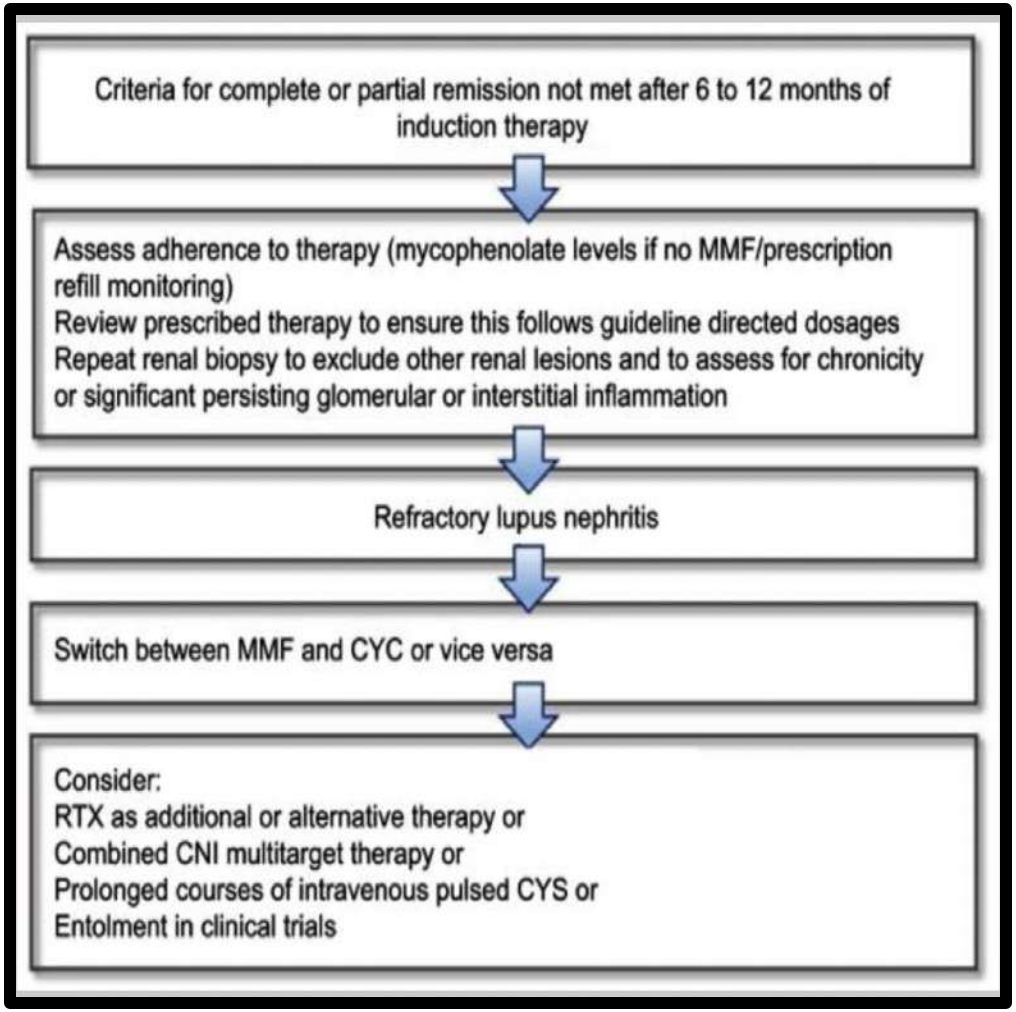
Definition: Failure to achieve significant response despite adequate duration and dose of therapy.

⚠ **The Trap:** Before calling it refractory, **you MUST rule out:**

1. Medication non-adherence.
2. Sub-therapeutic drug levels.
3. Chronic irreversible damage (scarring mimicking active disease).

Action: Biopsy essential. If chronic damage, STOP escalating immunosuppression.

REFRACTORY LN - TREATMENT

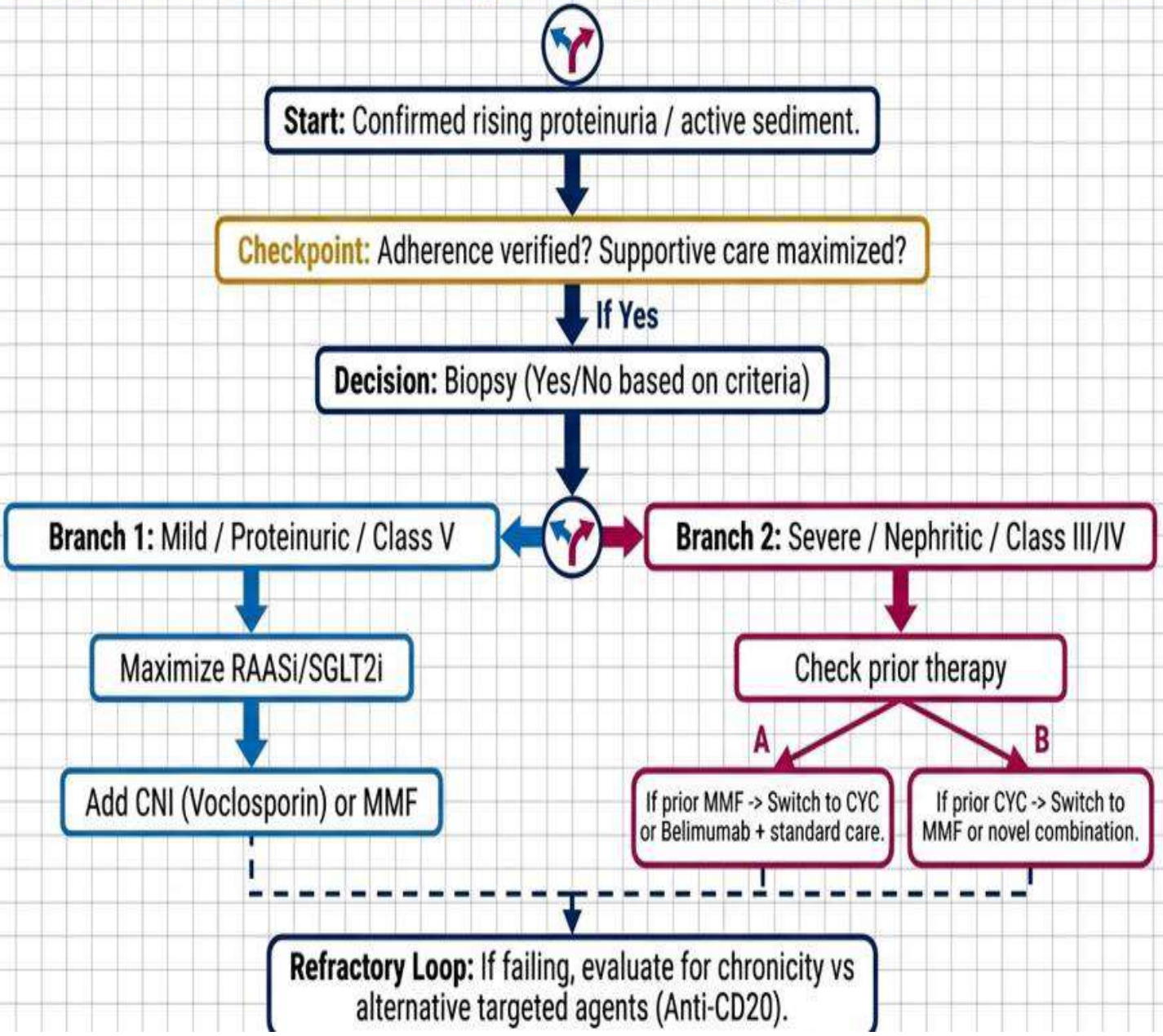


NEWER TREATMENT OPTIONS:

- **CAR T cells** expanded in vivo, led to deep depletion of B cells, improvement of clinical symptoms and normalization of laboratory parameters including seroconversion of anti-double-stranded DNA antibodies.

* *Chen YE, et al. Value of a complete or partial remission in severe lupus nephritis. Clin J Am Soc Nephrol. 2008;3:46–53.*

Master Treatment Algorithm: Suspected LN Flare



Effect of Belimumab on Preventing *de novo* Renal Lupus Flares

ISN INTERNATIONAL SOCIETY OF NEPHROLOGY

Nephritis-naïve SLE patients

Data from five phase III clinical trials of belimumab in SLE

Evaluation of

- Efficacy of Belimumab in preventing *de novo* renal flares
- Renal flare triggers in nephritis-naïve SLE patients

Add-on Belimumab

Placebo

N: 1844
Duration: 52 Wks

SLE: Systemic lupus erythematosus

RESULTS

7.4% developed a *de novo* renal flare

Association with *de novo* renal flares

- **Asian origin** (P = 0.001)
- **Anti-dsDNA levels** (P = 0.008)
- **⇧ Prednisone dose** (P = 0.001)

Hazard of *de novo* renal flare

- **Low dose IV Belimumab** — 3-fold lower hazard (P = 0.004)
- **Subcutaneous Belimumab** — Lower hazard (P = 0.003)
- **Labelled IV dose** — No clear protection (P = 0.127)

KI REPORTS
Kidney International Reports

Parodis I et al , 2023

Visual abstract by:
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Conclusion: We corroborated the substantial vulnerability of the Asian SLE population to renal affliction. Add-on low-dose IV belimumab (1 mg/kg) and SC belimumab appeared protective against renal flares in nephritis-naïve SLE patients. The approved IV dose (10 mg/kg) yielded no clear protection.