

Patients with active **LUPUS NEPHRITIS** are

LOSING

TIME AND

NEPHRONS^{1,2}

Delayed diagnosis, delayed adequate treatment, or patient experiencing a flare of lupus nephritis signals nephron loss, putting their long-term kidney health at risk...¹⁻⁶

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Despite an improved prognosis over recent decades,
**LUPUS NEPHRITIS POSES CHALLENGES RELATED TO TREATMENT
AND IS LINKED TO INCREASED MORBIDITY AND MORTALITY^{7,8}**



Lupus nephritis may develop in **up to 40% of patients with SLE.**⁸

Prevalence of lupus nephritis is **higher in women vs. men** across all age groups.⁹⁻¹¹

Black and Hispanic people tend to have higher serum creatinine levels and more proteinuria than white patients at lupus nephritis diagnosis.¹²

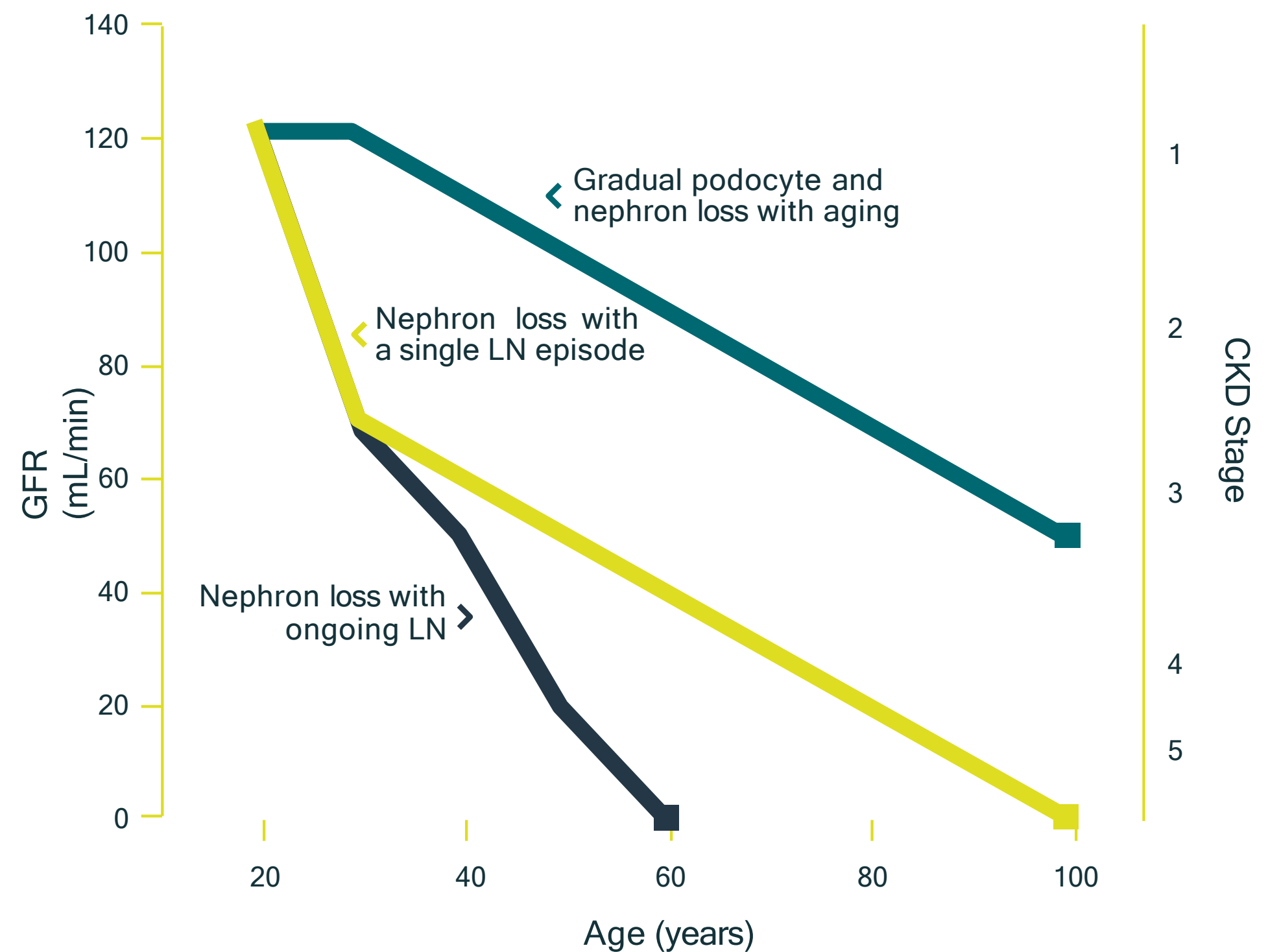
Up to 19% of patients with lupus nephritis **progress to end-stage renal disease** within 10 years of diagnosis.^{7,13}

ACTIVE LUPUS NEPHRITIS LEADS TO LOSS OF RENAL FUNCTION

It may lead to early onset of ESRD vs. normal aging^{2,14}

- Immunity against lupus autoantigens leads to inflammation of kidney. This inflammatory response eventually causes **nephron loss** thereby **impacting renal function**^{2,5}
- Every flare** contributes to progression to kidney failure^{2,4,5}
- It is suggested that **nephron loss** caused by lupus nephritis is **irreversible**²

Implied risk of ESRD in patients with lupus nephritis over lifetime²

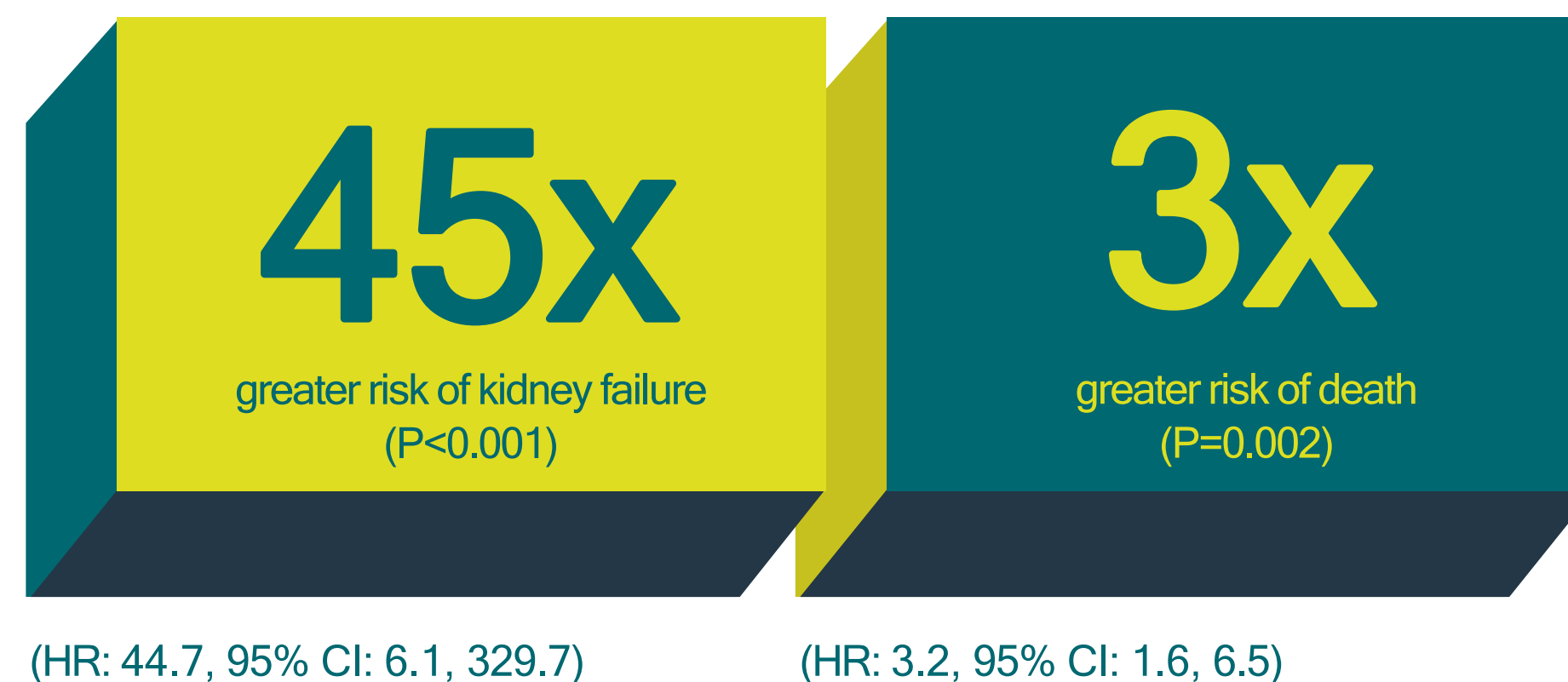


Adapted from Anders HJ, et al. *Nat Rev Dis Primers*. 2020;6(1):7.

ACTIVE LUPUS NEPHRITIS IS ASSOCIATED WITH INCREASED RISK OF KIDNEY FAILURE AND DEATH^{13,15,16}

In a cohort study (N=1827), patients in the Systemic Lupus International Collaborating Clinics inception cohort (≤ 15 months of SLE diagnosis) were evaluated to estimate HRQoL and the cumulative incidence function for the time until ESRD. Once diagnosed with lupus nephritis, patients had:^{15,*}

Adjusted risk of kidney failure and death once diagnosed with lupus nephritis^{15,**}



*Analysis of Systemic Lupus International Collaborating Clinics inception cohort of newly diagnosed patients enrolled between 1999 and 2012, who were followed for a mean of 4.6 years. A total of 1827 patients were recruited, of whom 700 had lupus nephritis over the course of follow-up.¹⁵

**Adjusting for gender, age at enrolment, and race/ethnicity, a Cox regression analysis on the competing risks of kidney failure and death, with the diagnosis of lupus nephritis used to define a time-dependent covariate.¹⁵

CI; confidence interval; ESRD, end-stage renal disease; HR; hazard ratio; HRQoL, health related quality of life; SLE, systemic lupus erythematosus.

EULAR/ERA-EDTA AND KDIGO GUIDELINES RECOMMEND ACTIVE SURVEILLANCE^{8,17,18}

The subtle and progressive nature of lupus nephritis underscores the importance of active surveillance.^{8,17,19,20}

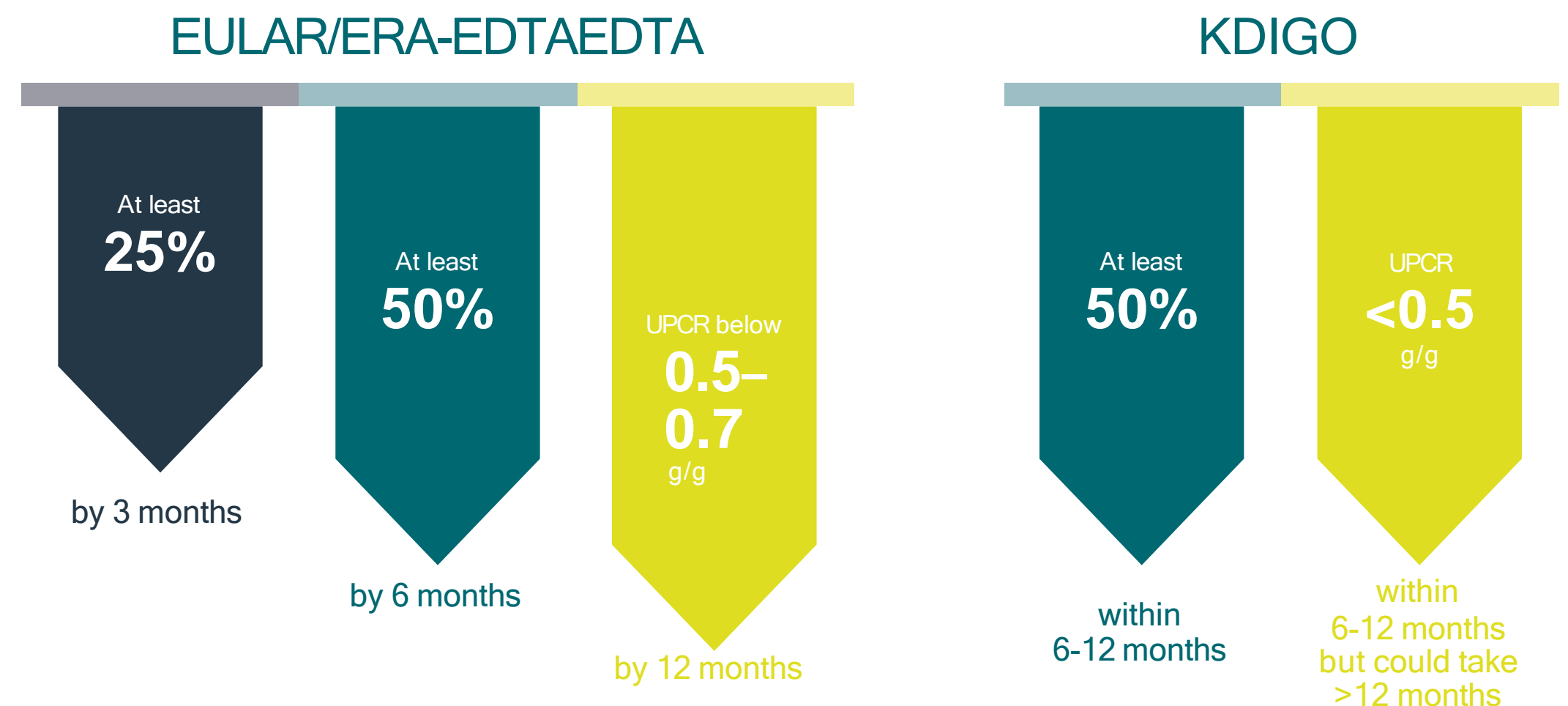
Lupus nephritis guidelines^{8,17,18}

RECOMMENDATION	KDIGO ¹⁸	EULAR/ERA-EDTA ^{8,17}
Active surveillance for LN in patients with SLE	Regular monitoring	At least every 3 months in those with high risk of kidney involvement
Criteria for kidney biopsy	<ul style="list-style-type: none"> • 24-hour proteinuria ≥ 500 mg/dl • Unexplained decrease eGFR 	<ul style="list-style-type: none"> • Proteinuria ≥ 0.5 g/24 hr • Glomerular haematuria and/or cellular casts • Unexplained decrease in GFR
Kidney biopsy	Recommended for classification and treatment	Recommended for classification and treatment

EULAR/ERA-EDTA AND KDIGO GUIDELINES RECOMMEND EARLY REDUCTION IN PROTEINURIA OVER FIRST YEAR OF TREATMENT^{8,18}

- EULAR/ERA-EDTA specifies that “**Goals of treatment** include patient survival, long term preservation of kidney function, prevention of disease flares, management of comorbidities and improvement in disease-related quality of life”⁸
- It is suggested that by achieving **proteinuria reduction** ≤ 0.5 g/day (equivalent to ≤ 0.5 g/g) at 12 months **predicts a 92% likelihood of maintaining kidney function** at 10 years²¹

Guidelines recommend target proteinuria decrease of ^{8,18} *,**



For EULAR: Adapted from Fanouriakis A, *et al.* *Ann Rheum Dis.* 2020;79(6):713-723.

For KDIGO: Adapted from KDIGO 2021. *Kidney International.* 2021;100: S1-S276.

* Patients with nephrotic-range proteinuria at baseline may require an additional 6 to 12 months to reach complete clinical response; in such cases, prompt switches of therapy are not necessary if proteinuria is improving.⁸

** Units of UPCR can vary based on geography.

ERA-EDTA: European Renal Association-European Dialysis and Transplant Association; EULAR: European League Against Rheumatism; KDIGO: Kidney Disease Improving Global Outcomes; UPCR: urine protein-to-creatinine ratio.

PATIENTS WITH ACTIVE LUPUS NEPHRITIS ARE LOSING TIME AND NEPHRONS^{1,2}



Delayed diagnosis and inadequate treatment, or patient experiencing a flare of lupus nephritis signals nephron loss, putting patient's **long-term kidney health at risk**¹⁻⁶



Lupus nephritis is a frequent and serious complication of SLE, increasing the **risk of kidney failure and death**²



EULAR/ERA-EDTA guidelines recommend **active surveillance every 3 months** for lupus nephritis in patients with SLE at high risk of developing renal involvement^{8,17}



EULAR/ERA-EDTA and KDIGO guidelines recommend **early reduction in proteinuria over first year** of treatment^{8,18}

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