Voclosporin Is Effective in Achieving Proteinuria Treatment Targets in Lupus Nephritis Defined by EULAR/ERA Recommendations

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DISCLOSURES

Affiliation/Financial Interest	Organization
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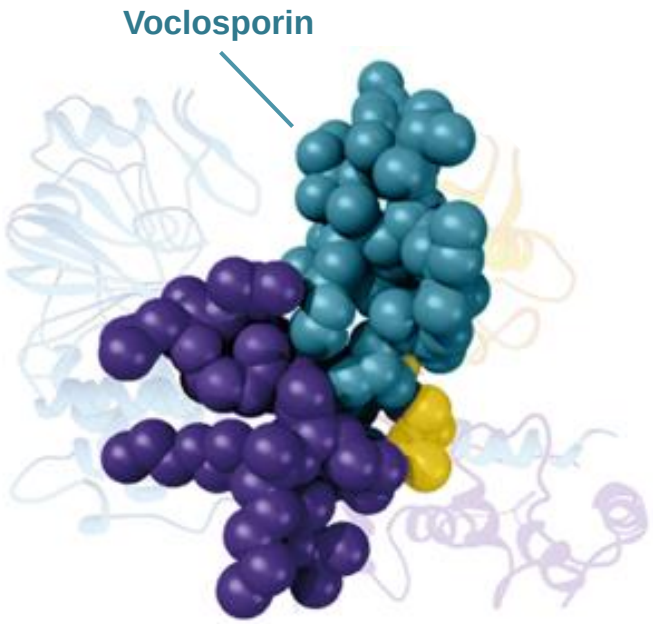
Voclosporin

- Voclosporin is a novel calcineurin inhibitor (CNI) approved in the US in January 2021 for adults with active LN in combination with background immunosuppressive therapy[1]
- Mechanisms of action[1]: Reduces T-cell activation, stabilizes podocytes
- No need for therapeutic drug monitoring[1,2]
- No increased safety signal for diabetes or dyslipidemia and no drug-drug interaction with MMF[3-7]



1. LUPKYNIS [package insert]. Rockville, MD: Aurinia Pharma U.S., Inc., 2021. 2. van Gelder T et al. JASN. 2020;31:594. 3. Busque S et al. Am J Transplant. 2011;11(12):2675-2684. 4. Kolic J et al. Endocrinology. 2020(161)11. 5. van Gelder T et al. Nephrol Dial Transplant. 2021;gfab022. 6. Ardoin S et al. Kidney Int Rep. 2022;7:S99. 7. Rovin BN et al. Lancet. 2021;397(10289):2070-2080.

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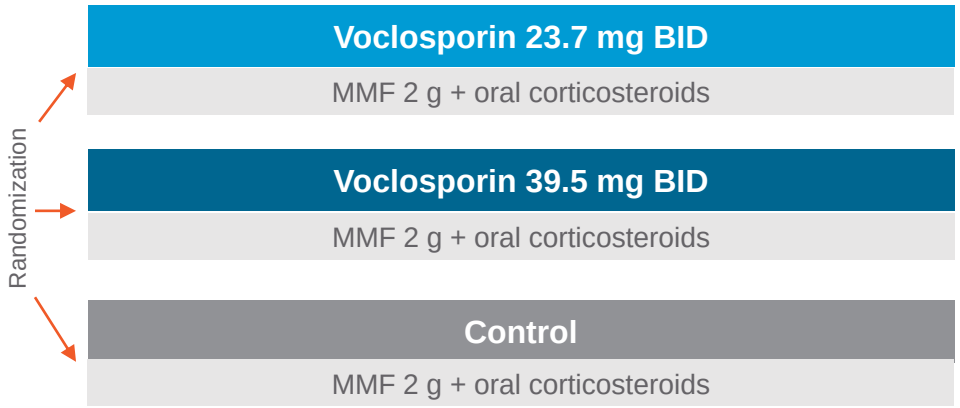
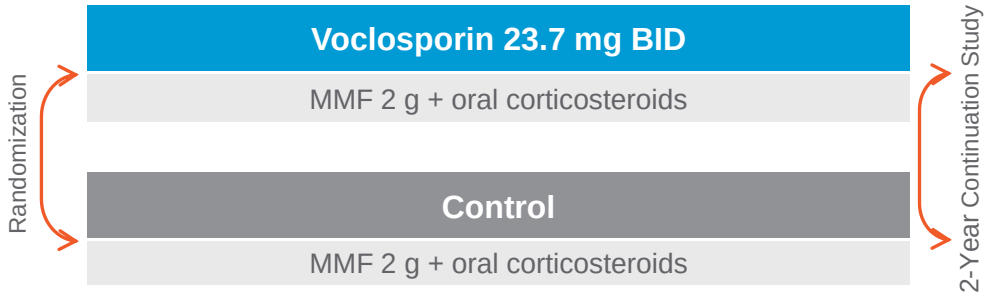
AURA-LV and AURORA 1

Global and double-blind RCTs with similar endpoints in patients with active LN[1,2]

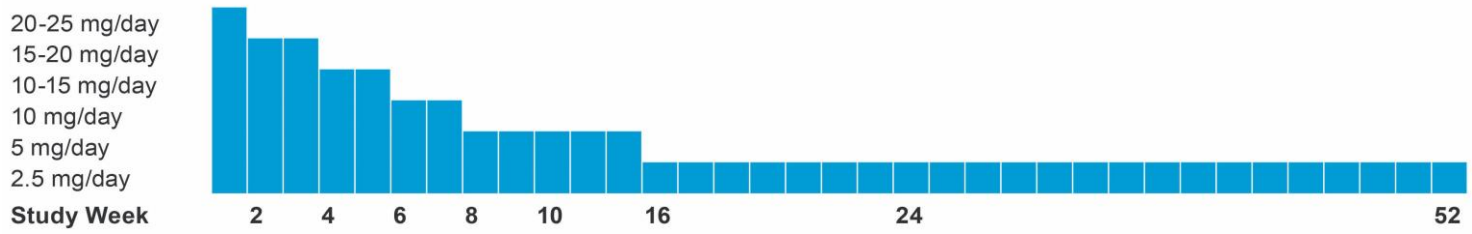
Phase 2 AURA-LV (n=265)



Phase 3 AURORA 1 (n=357)



Rapid Low-Dose Oral Steroid Taper*



BID, twice daily; MMF, mycophenolate mofetil. *Protocol-defined steroid taper included intravenous methylprednisolone 0.25-0.5 g/day administered on Days 1 and 2. Oral steroid was initiated on Day 3 with 20-25 mg/day prednisone and tapered to a target dose of 2.5 mg/day at Week 16. 1. Rovin BH et al. Lancet. 2021;397:2070. 2. Rovin BH et al. Kidney Int. 2019;95:219.

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Key Baseline Characteristics and Demographics

Biopsy-proven active LN (III/IV/V ± III/IV), UPCR ≥1.5 mg/mg (≥2 mg/mg for V), eGFR >45 mL/min/1.73 m^2

	Control (n=266)	Voclosporin (n=268)
Age, years		
Mean (SD)	33.5 (10.7)	32.3 (11.2)
Region, n (%)		
North and Latin America	93 (35.0)	87 (32.5)
Europe and South Africa	86 (32.3)	77 (28.7)
Asia	87 (32.7)	104 (38.8)
eGFR, mL/min/1.73 m^2		
Mean (SD)	93.6 (28.6)	93.2 (29.7)
UPCR, mg/mg		
Mean (SD)	4.1 (2.8)	4.5 (3.3)
Time since lupus nephritis diagnosis, years		
Mean (SD)	4.5 (4.6)	4.7 (5.1)

eGFR, estimated glomerular filtration rate; SD, standard deviation; UPCR, urine protein creatinine ratio.
Pooled analysis of AURA-LV and AURORA 1 includes data from the voclosporin 23.7 mg BID and control treatment groups.

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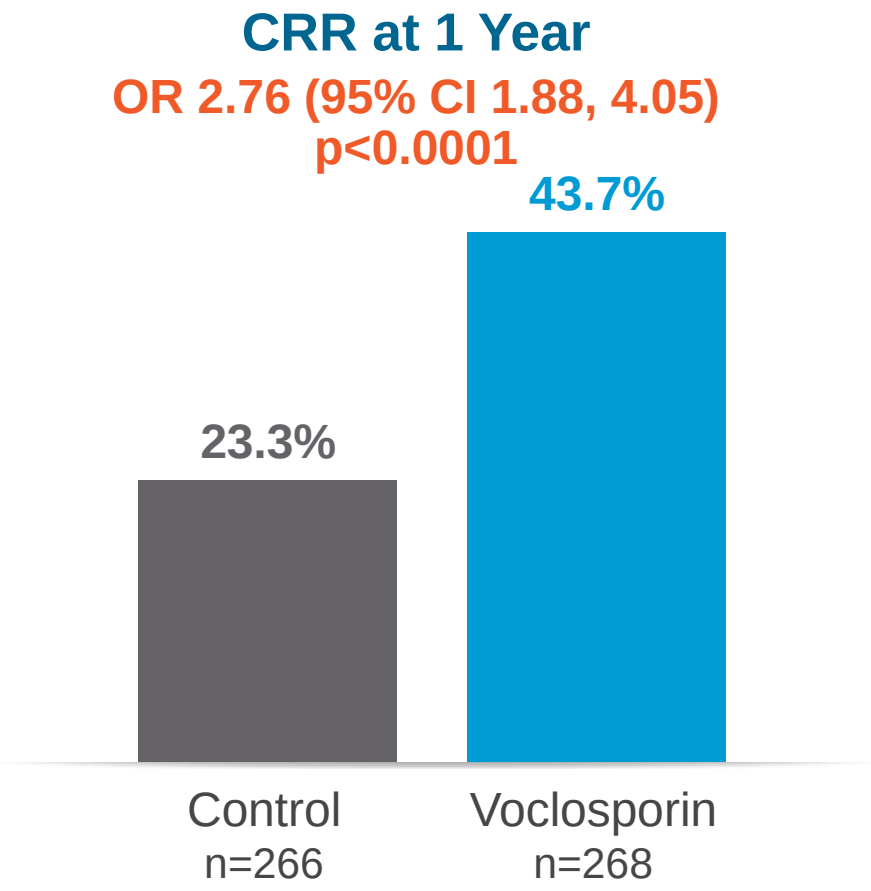
Pooled Analysis of AURA-LV and AURORA 1: Efficacy

Composite Primary Efficacy Outcome (CRR)

- UPCR ≤0.5 mg/mg
- eGFR ≥60 mL/min/1.73 m^2 or no decrease >20% from baseline
- Sustained low-dose steroids*
- No rescue medications



CI, confidence interval; CRR, complete renal response; eGFR, estimated glomerular filtration rate; LN, lupus nephritis; OR, odds ratio. *Low-dose steroids defined as no more than 10 mg prednisone equivalent per day for ≥3 consecutive days or for ≥7 days in the 8 weeks prior to the primary endpoint assessment. CRR analysis includes pooled data from voclosporin 23.7 mg BID and control treatment groups at 48 weeks in AURA-LV and 52 weeks in AURORA 1.

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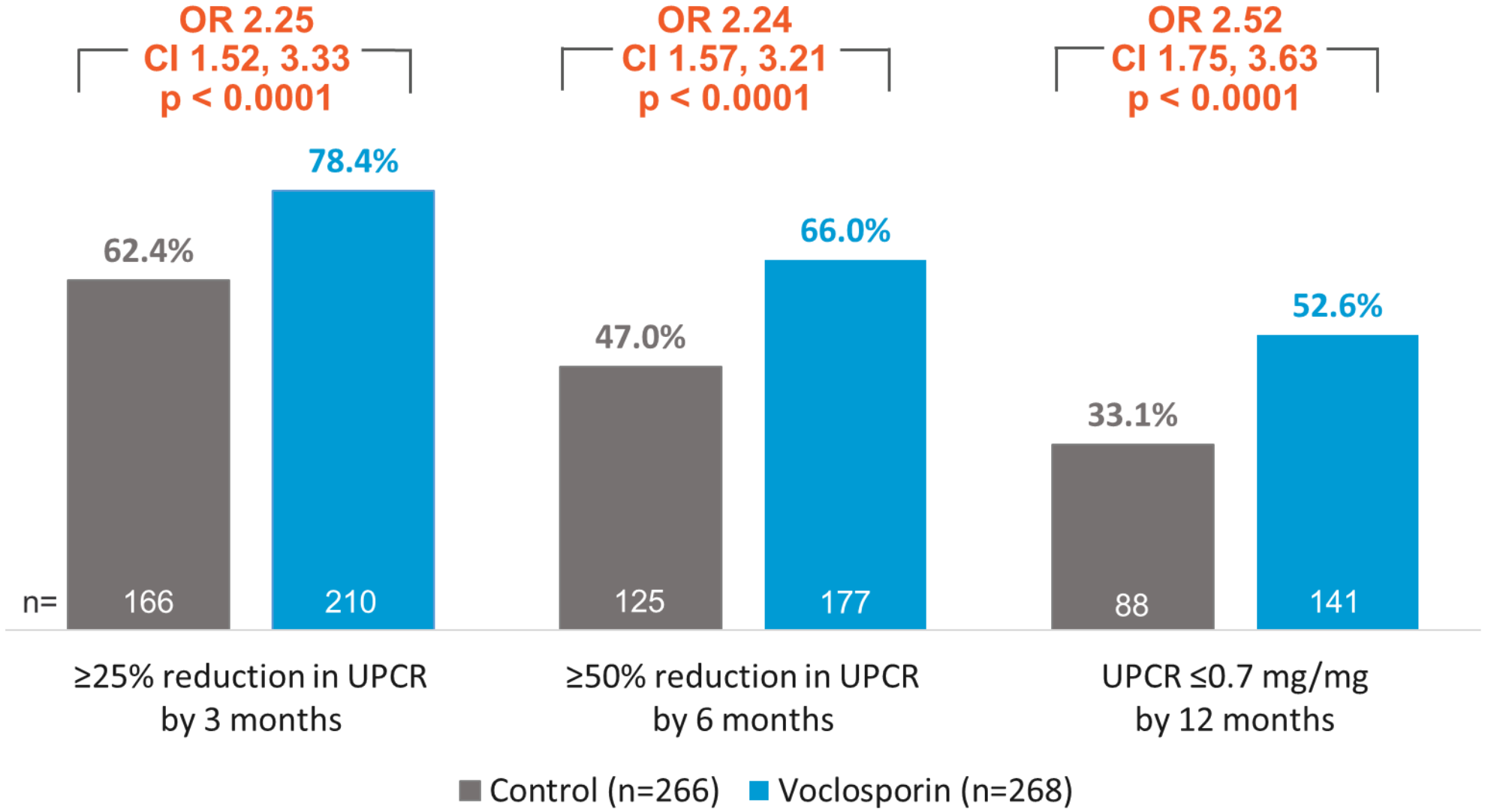
Achievement of Treatment Targets Defined by EULAR/ERA

- EULAR/ERA 2019: updated treatment recommendations for LN with targeted reductions in proteinuria[1]
- Here we present the results of a post-hoc analysis of pooled data from AURA-LV and AURORA 1 based on these updated response criteria and focused on the following treatment targets:[2,3]
  - 3 months: ≥25% reduction in UPCR
  - 6 months: ≥50% reduction in UPCR
  - 12 months: UPCR ≤0.7 mg/mg
  - Steroid dose ≤7.5 mg/day and UPCR ≤0.7 mg/mg at 12 months

1. Fanouriakis A et al. Ann Rheum Dis. 2020;79:713–723. 2. Rovin BH et al. Lancet. 2021;397:2070. 3. Rovin BH et al. Kidney Int. 2019;95:219.

Results - Proteinuria



CI, confidence interval; OR, odds ratio; UPCR, urine protein creatinine ratio. Analysis includes pooled data from voclosporin 23.7 mg BID and control treatment groups in AURA-LV and AURORA 1.

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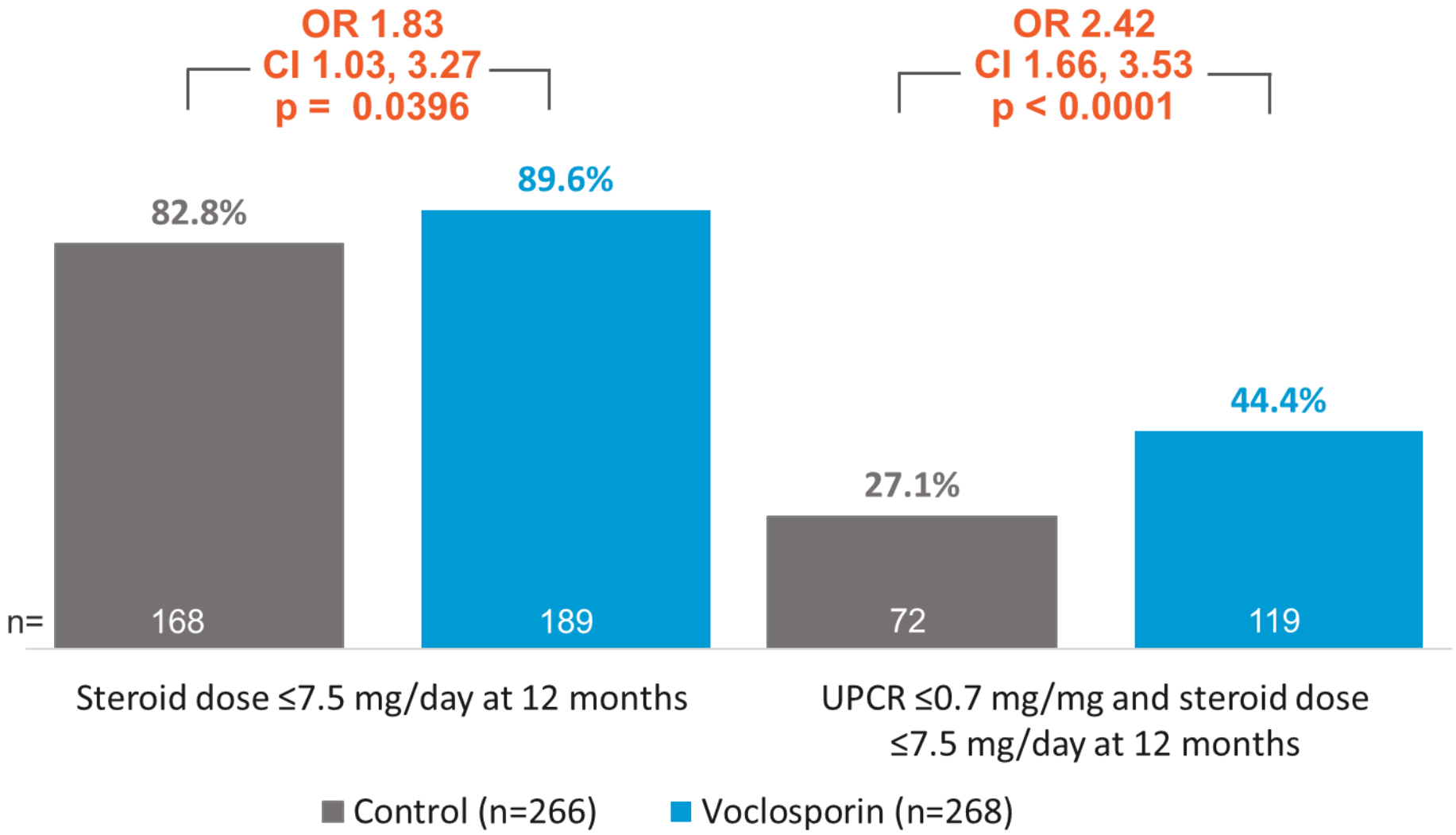
Results - Steroid Targets



CI, confidence interval; OR, odds ratio; UPCR, urine protein creatinine ratio. Analysis includes pooled data from voclosporin 23.7 mg BID and control treatment groups in AURA-LV and AURORA 1.

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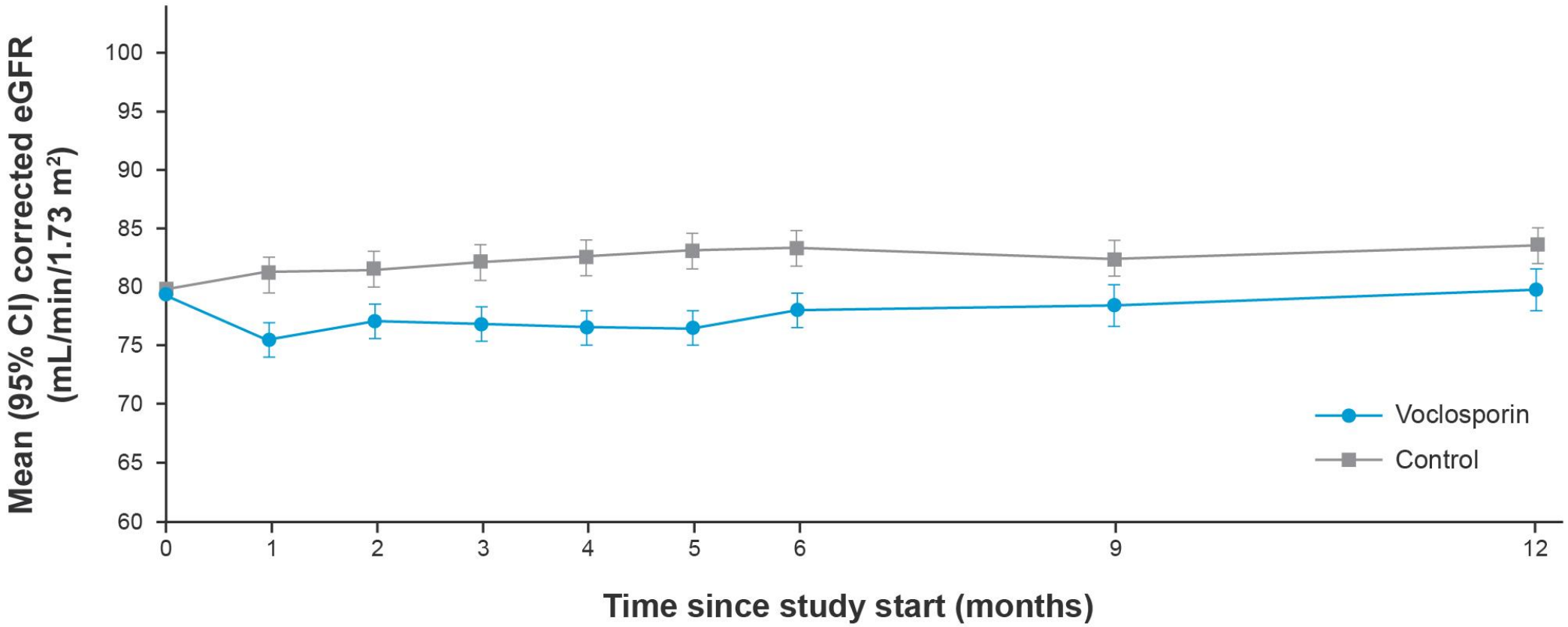
Results - Corrected Mean eGFR



CI, confidence interval; eGFR, estimated glomerular filtration rate. Renal function assessed with corrected eGFR (Chronic Kidney Disease Epidemiology Collaboration equation) using a prespecified ceiling of 90 mL/min/1.73 m^2. Analysis includes pooled data from voclosporin 23.7 mg BID and control treatment groups up to 48 weeks in AURA-LV and 52 weeks in AURORA 1.

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Conclusions

- In AURA-LV and AURORA 1, the addition of voclosporin to MMF and low-dose steroids led to a significantly higher CRR in pts with LN while eGFR remained stable over time
- In this post-hoc analysis, the addition of voclosporin significantly increased the likelihood of achieving the 3-, 6-, and 12-month UPCR targets of therapy recommended by EULAR/ERA