Supplemental material

Supplemental table S1: Remissions events using different immunosuppression drugs

Supplemental figure S1: Remission events with and without immunosuppression (A) or hypoalbuminemia (B).

Supplemental figure S2: Survival from a combined event in patients that experienced events only with IS, only without IS and both with and without IS (A) and in patients that experienced events only with hypoalbuminemia, only without hypoalbuminemia and both with and without hypoalbuminemia (B).

Supplemental figure S3: **:** Independent factors (A) associated with a relapse at one year following the remission without maintenance immunosuppression, model calibration (B) and applicability to events with and without atypical features (C).

STROBE statement

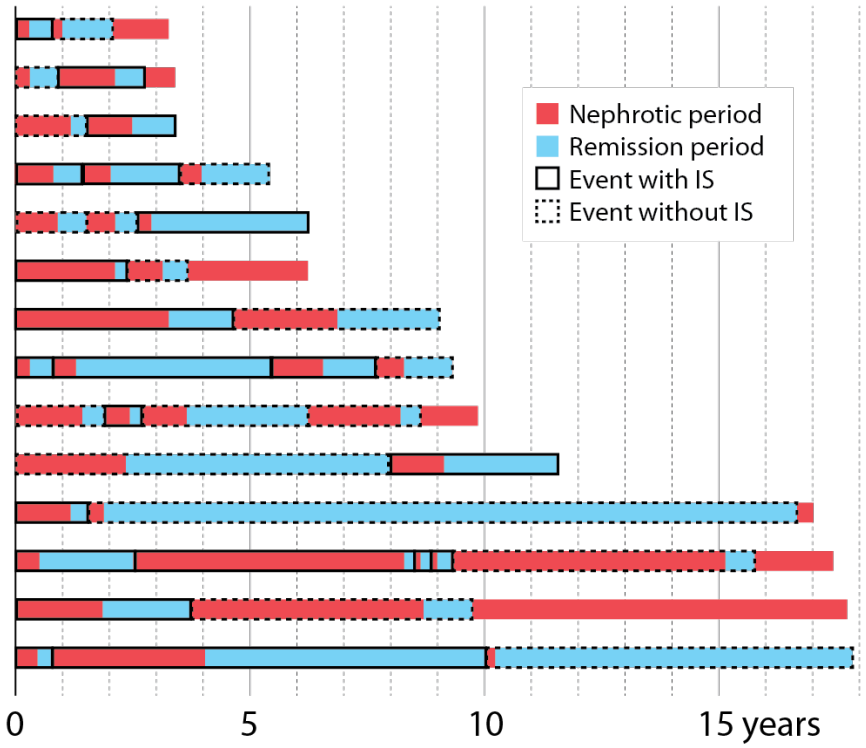
Supplemental table 1: Remissions events using different immunosuppression drugs

(Focus drug)	**A,** Glucocorticoid monotherapy (n=141)	**B,** anti-metabolites (n=13)	**C,** B-cell therapy** (n=30)	**D,** CNI (n=61)	P (post hoc*)
Nephrotic period leading to the remission					
Sex, % female	34	31	33	43	0.80
Initial age, years	43 ± 16	43 ± 13	41 ± 16	44 ± 13	0.91
Initial eGFR, mL/min/1.73m^2	69 ± 29	60 ± 30	78 ± 28	71 ± 30	0.28
Maximal proteinuria, g/day	7.6 (5.3-11.3)	6.3 (5.1-16.0)	9.2 (5.9-12.3)	7.4 (5.6-12.6)	0.76
Nadir albumin, g/L	27 ± 9	31 ± 9	27 ± 8	27 ± 8	0.41
Initial MAP, mmHg	105 ± 14	98 ± 8	99 ± 11	99 ± 15	0.03*
Initial number of blood pressure pills	1 (0-2)	1 (0-3)	1 (0-2)	2 (1-2)	0.48
Initial use of RASB, %	35	55	32	43	0.47
Treatment characteristics (all times in months)					
Type of co-immunosuppression, n	None by definition	GC, 12	GC, 26; CNI,4; AZA/MMF, 2	GC, 42; AZA/MMF, 16	
Time of start of focus drug***	1 (0-3)	2 (0-7)	3 (0-5)	7 (0-13)	0.02 (D>A)
Time of start of co-immunosuppression***	1 (0-3)	0 (0-2)	0 (0-1)	1 (0-8)	0.21
Time from focus drug start to partial remission	3 (1-6)	6 (1-12)	3 (2-11)	4 (1-10)	0.98
Time from remission to focus drug end	3 (0-8)	2 (0-8)	0 (-8, 4)	8 (2-21)	0.001 (D>C)
Duration of focus drug administration	6 (4-13)	4 (3-7)	2 (1-6)	14 (6-24)	<0.001 (D>A,C)
Duration of all immunosuppression	6 (4-13)	12 (7-19)	11 (6-18)	21 (11-37)	0.01 (D>A)
Remission period					
eGFR at remission, mL/min/1.73m^2	70 ± 30	63 ± 36	71 ± 31	60 ± 32	0.15
Reduction in GFR from nephrotic period onset	-1 ± 21	-2 ± 16	7 ± 28	11± 24	0.004 (D>A)
Nadir proteinuria, g/day	0.7 (0.2-1.6)	1.1 (0.3-2.1)	0.3 (0.1-1.5)	1.1 (0.3-1.9)	0.09
Reduction from maximal value	6.4 (4.4-10.2)	5.3 (3.8-14.0)	7.9 (5.3-11.5)	6.2 (4.4-11.7)	0.59
Complete / partial remission, %	36 / 64	31 / 69	53 / 47	30 / 70	0.16 (0.04, C>others)
MAP at remission, mmHg	95±12	93 ± 6	94 ±11	98± 13	0.25
Reduction in MAP from nephrotic period onset	10 ± 14	5 ± 9	6 ± 14	0 ± 16	0.001 (D>A)
Nb blood pressure pills at remission	1 (0-2)	1 (0-3)	1 (1-2)	2 (1-3)	0.29
Use of RASB at remission, %	54	54	60	69	0.26
Relapse, %	55	62	57	64	0.66
Time from remission to relapse, months	6 (3-21)	12 (7-19)	8 (3-17)	10 (4-23)	0.461
On maintenance focus drug at time of relapse, %	14	15	3	46	<0.001 (D>A>C)

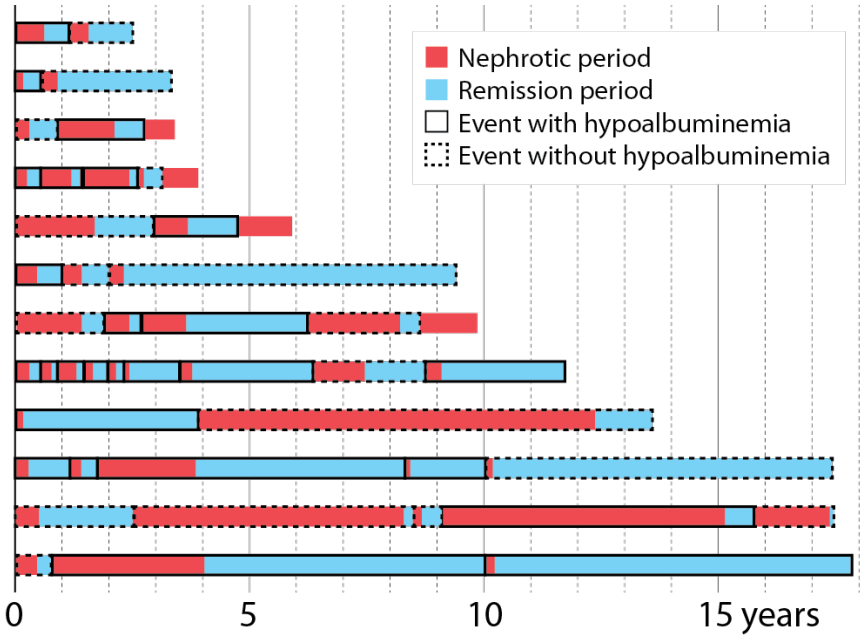
Legend: all times in months. MAP, mean arterial pressure; RASB, Renin angiotensin system blockade; GC, glucocorticoid; CNI, calcineurin inhibitors; AZA, azathioprine; MMF, mycophenolate mofetil. *post-hoc analyses used the Bonferroni correction for multiple comparisons. **B-cell therapy consisted of cyclophosphamide (n=29) and rituximab (n=1). *** from beginning of onset of nephrotic period

Supplemental Figure 1: Remission events with and without immunosuppression (A) or hypoalbuminemia (B)

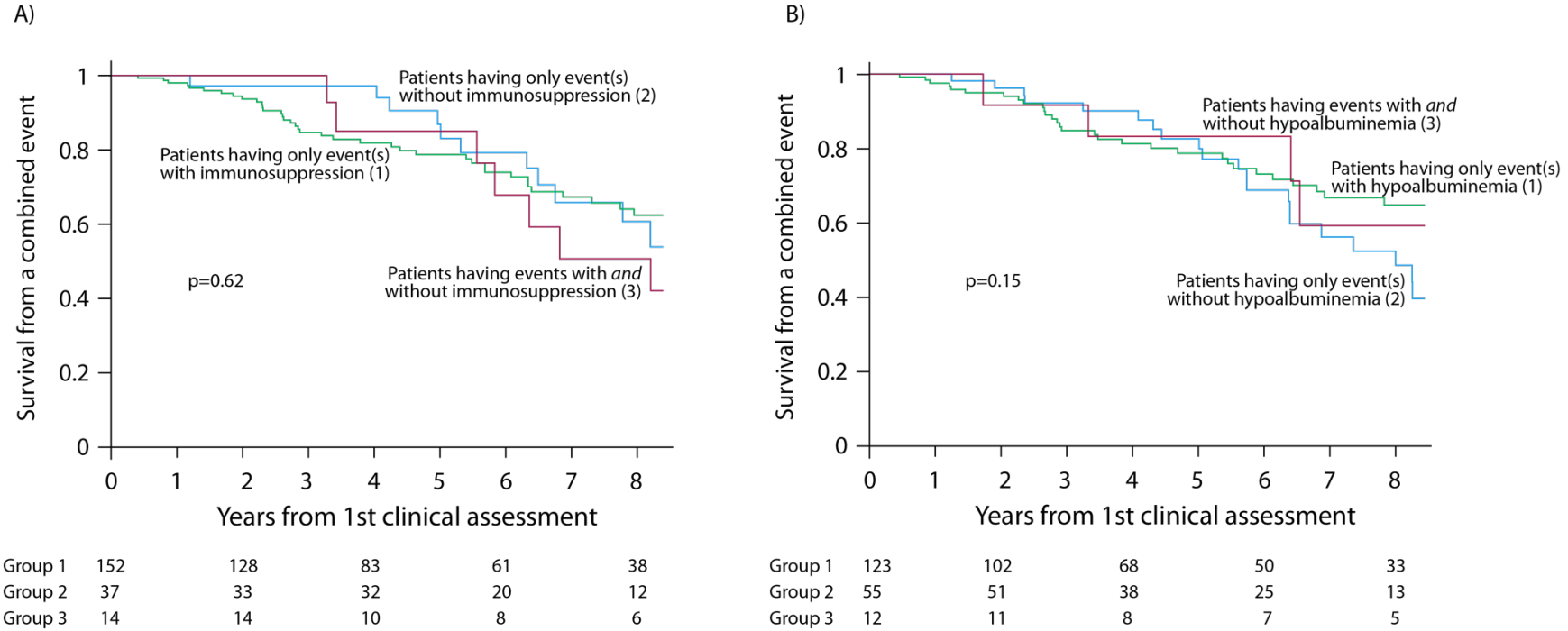
A) 14 subjects with remission events with and without immunosuppression



B) 12 Subjects with remission events with and without hypoalbuminemia

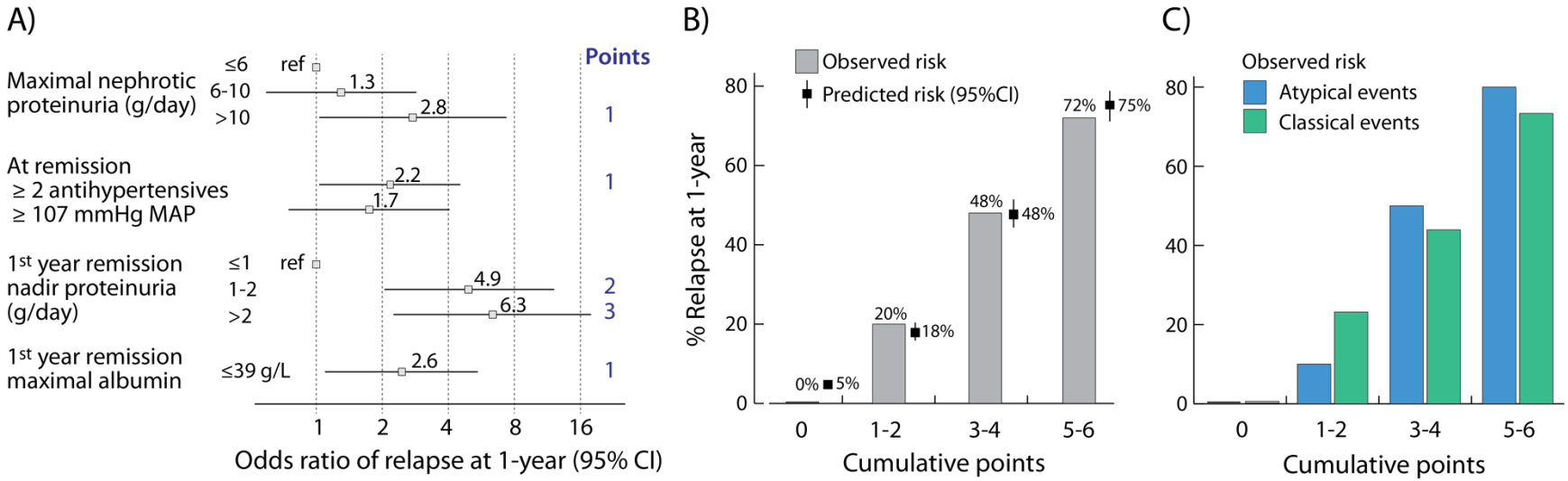


Supplemental figure 2: Patient Survival from a combined event in those that experienced events only with IS, only without IS and both with and without IS (A), and in those that experienced events only with hypoalbuminemia, only without hypoalbuminemia and both with and without hypoalbuminemia (B) *.



Legend: * there were 13/203 patients who did not have an available albumin measurement during their nephrotic period(s).

Supplementary Figure 3: Independent factors (A) associated with a relapse at one year following the remission *without maintenance immunosuppression*, model calibration (B) and applicability to events with and without atypical features (C)



Legend: Events that had less than 1 year follow-up following the remission were excluded unless they had already relapsed (n=36). We considered in this version of the multilevel logistic regression those remissions where maintenance IS regimens were either never started, stopped or on a tapering dose to estimate the "natural" risk of relapse. This excluded events where maintenance IS was given during the entire first year in remission (n=47). This left 229 remissions and 75 early relapses to examine. Atypical events are defined by remissions following nephrotic range proteinuria without hypoalbuminemia or remissions that occurred without the use of immunosuppression. The C-statistic was 0.80 (95% CI: 0.73-0.86). MAP, mean arterial pressure.

STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	4
Methods			
Study design	4	Present key elements of study design early in the paper	5-6
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	5-7
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-8
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6-8
Bias	9	Describe any efforts to address potential sources of bias	6-8
Study size	10	Explain how the study size was arrived at	5
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	7 Fig1
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	8
		(*b*) Describe any methods used to examine subgroups and interactions	8
		(*c*) Explain how missing data were addressed	8
		(*d*) If applicable, explain how loss to follow-up was addressed	8
		(*e*) Describe any sensitivity analyses	8
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	10 Fig2
		(b) Give reasons for non-participation at each stage	
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	10
		(b) Indicate number of participants with missing data for each variable of interest	10
		(c) Summarise follow-up time (eg, average and total amount)	10
Outcome data	15*	Report numbers of outcome events or summary measures over time	10

Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included (*b*) Report category boundaries when continuous variables were categorized (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	10-15 Fig3-4 Fig3 legend
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	10-15
Discussion			
Key results	18	Summarise key results with reference to study objectives	16
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	17-19
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	17-19
Generalisability	21	Discuss the generalisability (external validity) of the study results	17-19
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	20

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.