Lau KK, et al. Short-term outcomes of severe lupus nephritis in a cohort of predominantly African-American children. Pediatr Nephrol. 2006. 21:655-662.

Short term renal outcomes assessed:

1. GFR and change in GFR/renal insufficiency
2. Change in creatinine
   1. Renal flare- doubling of creatine
3. Change in C3/C4
   1. Normal values were 90–180mg/dl and 10–40mg/dl for C3 and C4, respectively (4)
4. Change in albumin
5. Change in UPC (1)
   1. UPC <0.2 -normal
   2. > 1mg/mg -nephrotic
6. Change in prednisone dose
   1. Mean dose at initial and at follow up (most recent visit)
   2. See if it separates by race/ethnicity or medication
7. Incidence hypertension
8. ESRD/transplant/dialysis
9. How many in remission (2)
   1. Normal creatinine (<1.2mg/dl)
   2. UPC <0.2
   3. Urine RBCS <10/HpF

*How to define change? What is clinically important?*

1. Nwobi O, et al. Rituximab therapy for juvenile-onset systemic lupus erythematosus (<https://link.springer.com/article/10.1007/s00467-007-0694-9>)

* Proteinuria defined normal <0.2, nephrotic >1 mg/mg in protein/cr ration
* Serum albumin indirect measure of nephrotic syndrome
* (eGFR) was derived by the height index formula of Schwartz, expressed as milliliters per minute per 1.73 meters squared (ml/min per 1.73 m2) [[17](https://link.springer.com/article/10.1007/s00467-007-0694-9#CR17)].
* Complete renal remission was defined as normalization of Upr/cr and eGFR.
* Maybe we should also count remission vs not remission as a way of looking at outcome too?

1. Retrospective analysis of the renal outcome of pediatric lupus nephritis (<https://link.springer.com/article/10.1007/s10067-004-0919-2>)

* Complete remission: at least 6 months: normal serum creatinine (<1.2 mg/dl), insignificant proteinuria (<1 g/day or ≦1+ on urinary stick), and inactive urinary sediment (absence of cellular casts and <10 RBCs/HPF).
* Partial stabilization: normal serum creatinine (<1.2 mg/dl) for at least 6 months, and an improvement of or a return to normal from a previously elevated urinary protein or sediment, but not all normal. Such patients could have had persistent proteinuria, hematuria, or both.
* Response to therapy: achieving complete remission or partial stabilization without new appearances of proteinuria, hematuria or increased serum creatinine for at least 6 months.
* Flare: new appearances of proteinuria, hematuria or increased serum creatinine for at least 6 months after complete remission or partial stabilization . Only the first episode of flare was included in the analysis. Flares were classified as nephrotic or nephritic.
* Nephrotic flare. This was defined as the reappearance of proteinuria ≧1 g/day or urine stick ≧2+, with normal serum creatinine (<1.2 mg/dl) and inactive urinary sediment.
* Nephritic flare. This was defined as the reappearance of cellular casts or ≧10 RBCs/HPF, with or without proteinuria, and with normal or increased serum creatinine.
* ESRD: This was defined as the time of initiation of long-term dialysis or renal transplantation.
* Renal survival: This was defined as survival without dialysis or renal transplantation.

1. The use of low-dose cyclophosphamide followed by AZA/MMF treatment in childhood lupus nephritis (<https://link.springer.com/article/10.1007/s00467-009-1291-x>)

* Complete remission: having no clinical symptoms of activity, with normal serum albumin, urinalysis, urine protein/creatinine and GFR
* Partial remission: remission of clinical symptoms, >50% improvement in urine protein or GFR, <6–8 RBC/HPF in urinary sediment with no casts, and serum creatinine concentration <1 mg/dl)
* Active disease or nonresponse: no change in clinical status and <50% improvement in urine protein or GFR
* Adverse outcome: chronic renal failure, either loss of renal function (GFR 20–79 ml/min per 1.73 m2) or terminal renal failure (GFR <20 ml/min per 1.73 m2)
* Relapses: recurrences of clinical disease and the worsening of C3/C4 and serology, thereby requiring clinicians to increase therapy to high-dose prednisolone (1 mg/kg per day) or adding another immunosuppressive drug for control

1. <https://www.sciencedirect.com/science/article/pii/S0049017213001534#f0005>
   1. Hypertension was defined as systolic or diastolic blood pressure ≥ the 95thpercentile for age, height, and sex
   2. Normal values were 90–180mg/dl and 10–40mg/dl for C3andC4, respectively

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