



# Outcomes after hydroxychloroquine reduction or discontinuation in a multinational inception cohort of systemic lupus

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## Patients reducing or discontinuing HCQ are at greater risk of having a poor outcome versus those maintaining the drug



## Higher risk of poor outcomes independently of HCQ treatment option

Questions?  
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**Table 1. Hazard ratios (HRs), and 95% confidence intervals (CIs) for poor outcomes in HCQ-exposed SLE patients (N=1460)**

Characteristics at time zero	HR (95% CI)	aHR (95% CI)
HCQ Group		
Maintenance	Reference	-
Reduction	<b>1.35 (1.19, 1.53)</b>	<b>1.40 (1.22, 1.59)</b>
Discontinuation	<b>1.36 (1.17, 1.56)</b>	<b>1.48 (1.27, 1.73)</b>
Male sex	1.01 (0.85, 1.21)	0.96 (0.79, 1.15)
Race/ethnicity		
Caucasian	Reference	-
Asian	<b>1.26 (1.09, 1.46)</b>	0.91 (0.77, 1.07)
Black	<b>1.22 (1.03, 1.44)</b>	0.94 (0.78, 1.13)
Others	<b>1.49 (1.28, 1.74)</b>	1.07 (0.91, 1.27)
Age at SLE diagnosis in years	0.99 (0.99, 1.00)	1.00 (0.99, 1.00)
No college/university education	<b>1.17 (1.04, 1.31)</b>	1.03 (0.92, 1.16)
Active disease (SLEDAI-2K ≥ 4)	<b>1.36 (1.22, 1.52)</b>	<b>1.13 (1.01, 1.27)</b>
Renal damage	<b>1.25 (1.01, 1.55)</b>	0.89 (0.71, 1.13)
Body mass index	0.99 (0.98, 1.00)	1.00 (0.99, 1.02)
Smoker	0.93 (0.82, 1.05)	0.98 (0.86, 1.11)
Prednisone use	<b>2.19 (1.95, 2.47)</b>	<b>1.73 (1.50, 1.99)</b>
Immunosuppressive use	<b>2.27 (2.04, 2.54)</b>	<b>1.77 (1.56, 2.01)</b>
Biologic use	0.98 (0.68, 1.40)	0.74 (0.51, 1.07)
Time on HCQ	1.01 (0.98, 1.03)	0.97 (0.94, 1.00)

### Discussion/ Potential limitations:

- These analyses **do not** account for reasons HCQ was reduced or discontinued
- 40% of patients reducing or stopping HCQ were **not on remission**

**Conclusion:** Reducing or stopping HCQ in non-controlled circumstances, such as HCQ shortages, is not safe. Patients with more active and severe SLE should be closely monitored to avoid SLE flares

### References:

Owens. *Lancet Rheumatol.* 2020;2(5):e257

### Background:

- Hydroxychloroquine (HCQ) is a cornerstone treatment for Systemic Lupus Erythematosus (SLE)
- Recent concerns with HCQ shortages for SLE patients, due to its use as a potential COVID-19 treatment

**Objective:** To evaluate the risks of poor outcomes after HCQ disruption and identify the predictors of poor outcomes

### Methods:

- Systemic Lupus International Collaborating Clinics (SLICC) inception cohort
  - 33 countries;
  - Recent-onset SLE patients;
  - Annual follow-up
- Time-zero: first HCQ reduction or discontinuation
- Comparison: patients maintaining HCQ
- Outcome: SLE-related poor outcome
  - Subsequent need for SLE therapy augmentation, increase in disease activity, or hospitalization for SLE
- Cox regression analysis adjusted by demographics and clinical characteristics