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Chavatza, K.[a] , Kostopoulou, M.[b] , Nikolopoulos, D.[a] , Gioti, O.[c] , Togia, K.[a] , Andreoli, L.[d e] , Aringer, M.[f] , Boletis, J.[g] , Doria, A.[h] , Houssiau, F.A.[i] , Jayne, D.[j] , Mosca, M.[k] , Svenungsson, E.[l] , Tincani, A.[d] , Bertsias, G.[m] , Fanouriakis, A.[a c] , Boumpas, D.T.[a n]

**Quality indicators for systemic lupus erythematosus based on the 2019 EULAR recommendations: Development and initial validation in a cohort of 220 patients**

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**Abstract**
Quality of care is receiving increased attention in systemic lupus erythematosus (SLE). We developed quality indicators (QIs) for SLE based on the 2019 update of European League Against Rheumatism recommendations. A total of 44 candidate QIs corresponding to diagnosis, monitoring and treatment, were independently rated for validity and feasibility by 12 experts and analysed by a modified Research and Development Corporation/University of California Los Angeles model. Adherence to the final set of QIs and correlation with disease outcomes (flares, hospitalisations and organ damage) was tested in a cohort of 220 SLE patients with a median monitoring of 2 years (IQR 2–4). The panel selected a total of 18 QIs as valid and feasible. On average, SLE patients received 54% (95% CI 52.3% to 56.2%) of recommended care, with adherence ranging from 44.7% (95% CI 40.8% to 48.6%) for diagnosis-related QIs to 84.3% (95% CI 80.6% to 87.5%) for treatment-related QIs. Sustained remission or low disease activity were achieved in 26.8% (95% CI 21.1% to 33.2%). Tapering of prednisone dose to less than 7.5 mg/day was achieved in 93.6% (95% CI 88.2% to 97.0%) while 73.5% (95% CI 66.6% to 79.6%) received the recommended hydroxychloroquine dose. Higher adherence to monitoring-related QIs was associated with reduced risk for a composite adverse outcome (flare, hospitalisation or damage accrual) during the last year of observation (OR 0.97 per 1% adherence rate, 95% CI 0.96 to 0.99). We developed QIs for assessing and improving the care of SLE patients. Initial real-life data suggest face validity, but a variable degree of adherence and a need for further improvement. 

**Author Keywords**
autoimmune diseases; glucocorticoids; health care; lupus erythematosus; quality indicators; systemic

**Index Keywords**
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Systemic, Lupus Nephritis, Male, Mass Screening, Osteoporosis, Platelet Aggregation Inhibitors, Practice Guidelines as Topic, Pre-Eclampsia, Prednisone, Pregnancy, Quality Indicators, Health Care, Remission Induction, Reproducibility of Results, Risk Assessment, Societies, Medical, Symptom Flare Up

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