SLEDAI and SELENA

The Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and Safety of Estrogens in Lupus National Assessment (SELENA) are pertinent to clinical trial tools.

SLEDAI is a standard scale for evaluating disease activity. The SELENA study modified the original SLEDAI to also encompass ongoing disease activity in rash, mucosal ulcers, and alopecia descriptors. The SLEDAI-2000 (SLEDAI-2K) further added persistent disease activity in proteinuria, and has been proven effective in predicting mortality and disease activity.

Weight	Descriptor	SLEDAI-2K Definition	SLEDAI-2K Score*	SELENA-SLEDAI Definition	SELENA-SLEDAI Score*
8	Seizure	Recent onset, exclude metabolic, infections or drug causes.		Recent onset (last 10 days), exclude metabolic, infectious or drug cause, or seizure due to past irreversible CNS damage.	
8	Psychosis	Altered ability to function in normal activity due to severe disturbance in the perception of reality. Include hallucinations, incoherence, marked loose associations, impoverished thought content, marked illogical thinking, bizarre, disorganized, or catatonic behavior. Exclude uremia and drug causes.		Altered ability to function in normal activity due to severe disturbance in the perception of reality. Include hallucinations; incoherence; marked loose associations; impoverished thought content; marked illogical thinking; bizarre, disorganized or catatonic behavior. Exclude uremia and drug causes.	
8	Organic brain syndrome	Altered mental function with impaired orientation, memory, or other intellectual function, with rapid onset and fluctuating clinical features, inability to sustain attention to environment, plus at least 2 of the following: perceptual disturbance, incoherent speech, insomnia or daytime drowsiness, or increased or decreased psychomotor activity. Exclude metabolic, infectious, or drug causes.		Altered mental function with impaired orientation, memory or other intellectual function, with rapid onset and fluctuating clinical features. Include clouding of consciousness with reduced capacity to focus, and inability to sustain attention to environment, plus at least 2 of the following: perceptual disturbance, incoherent speech, insomnia or daytime drowsiness, or increased or decreased psychomotor activity. Exclude metabolic, infectious or drug causes.	
8	Visual disturbance	Retinal changes of SLE. Include cytoid bodies, retinal hemorrhages, serous exudate or hemorrhages in the choroid, or optic neuritis. Exclude hypertension, infection, or drug causes.		Retinal and eye changes of SLE. Include cytoid bodies, retinal hemorrhages, serous exudate or hemorrhages in the choroid, optic neuritis, scleritis or episcleritis. Exclude hypertension, infection or drug causes.	
8	Cranial nerve disorder	New onset of sensory or motor neuropathy involving cranial nerves.		New onset of sensory or motor neuropathy involving cranial nerves. Include vertigo due to lupus.	
8	Lupus headache	Severe, persistent headache; may be migrainous, but must be nonresponsive to narcotic analgesia.		Severe persistent headache: may be migrainous, but must be nonresponsive to narcotic analgesia.	
8	CVA	New onset of cerebrovascular accident(s). Exclude arteriosclerosis.		New onset of cerebrovascular accident(s). Exclude arteriosclerosis or hypertensive causes.	
8	Vasculitis	Ulceration, gangrene, tender finger nodules, periungual infarction, splinter hemorrhages, or biopsy or angiogram proof of vasculitis.		Ulceration, gangrene, tender finger nodules, periungual infarction, splinter hemorrhages, or biopsy or angiogram proof of vasculitis.	

SLEDAI and SELENA (cont.)

Weight	Descriptor	SLEDAI-2K Definition	SLEDAI-2K Score*	SELENA-SLEDAI Definition	SELENA-SLEDAI Score*
4	Arthritis	≥2 joints with pain and signs of inflammation (ie, tenderness, swelling, or effusion).		>2 joints with pain and signs of inflammation (ie, tenderness, swelling, or effusion).	
4	Myositis	Proximal muscle aching/ weakness, associated with elevated creatine phosphokinase/aldolase or electromyogram changes or a biopsy showing myositis.		Proximal muscle aching/weakness, associated with elevated creatine phosphokinase/aldolase or electromyogram changes or a biopsy showing myositis.	
4	Urinary casts	Heme-granular or red blood cell casts.		Heme-granular or red blood cell casts.	
4	Hematuria	>5 red blood cells/high power field. Exclude stone, infection, or other cause.		>5 red blood cells/high power field. Exclude stone, infection, or other cause.	
4	Proteinuria	>0.5 gram/24 hours.		New onset or recent increase of >0.5 gram/24 hours.	
4	Pyuria	>5 white blood cells/high power field. Exclude infection.		>5 white blood cells/high power field. Exclude infection.	
2	Rash	Inflammatory type rash.		Ongoing inflammatory lupus rash.	
2	Alopecia	Abnormal, patchy or diffuse loss of hair.		Ongoing abnormal, patchy or diffuse loss of hair due to active lupus.	
2	Mucosal ulcers	Oral or nasal ulcerations.		Ongoing oral or nasal ulcerations due to active lupus.	
2	Pleurisy	Pleuritic chest pain with pleural rub or effusion, or pleural thickening.		Classic and severe pleuritic chest pain or pleural rub or effusion or new pleural thickening due to lupus.	
2	Pericarditis	Pericardial pain with at least 1 of the following: rub, effusion, or electrocardiogram or echocardiogram confirmation.		Classic and severe pericardial pain or rub or effusion, or electrocardiogram confirmation.	
2	Low complement	Decrease in CH50, C3, or C4 below the lower limit of normal for testing laboratory.		Decrease in CH50, C3, or C4 below the lower limit of normal for testing laboratory.	
2	Increased DNA binding	Increased DNA binding by Farr assay above normal range for testing laboratory.		>25% binding by Farr assay or above normal range for testing laboratory.	
1	Fever	>38°C (100.4°F). Exclude infectious cause.		>38°C (100.4°F). Exclude infectious cause.	
1	Thrombocytopenia	<100,000 platelets/ x10^9/L, exclude drug causes.		<100,000 platelets/mm^3.	
1	Leukopenia	<3,000 white blood cells/10^9/L, exclude drug causes.		<3,000 white blood cells/mm^3. Exclude drug causes.	
		Total SLEDAI-2K Score:	____ / 105	**Total SELENA-SLEDAI Score:**	____ / 105

* Enter score if descriptor is present at the time of visit or in the preceding 10 days.

References

Gladman DD, Ibanez D, Urowitz MB. Systemic Lupus Erythematosus Disease Activity Index 2000. *J Rheumatol*. 2002;29(2):288-291.

Petri M, Kim MY, Kalunian KC, et al. Combined oral contraceptives in women with systemic lupus erythematosus: Appendix. *N Engl J Med*. 2005;353(24):2550-2558.

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