



# ARIA ESSENTIALS

## RADIOLOGY PERSPECTIVES



### ARIA Quick Reference: Assessments and Protocols

#### Standard Reporting and Protocols for ARIA

**TECHNIQUE: Blood Sensitive Sequence: [<SWI>][<GRE/T2\*>] Field Strength: [<3 T>][<1.5 T>]**

Category	Details
Findings	
Total microhemorrhages	Total number Describe locations in general, deep vs lobar
Superficial siderosis	None / < 1 focal area / < 2 focal areas / > 2 focal areas Describe locations
Extent of white matter hyperintensities	Mild, moderate, severe
Infarcts	Describe cortical and subcortical infarcts if present
Other findings	General description of other acute or chronic findings
Impression	
Total microhemorrhages	0-4 / 5-9 / ≥ 10
Superficial siderosis	Not detected vs present
Other findings	General description of other findings

#### ARIA Severity

Clinical Symptom Severity	ARIA-E Severity			ARIA-H Severity		
	Mild	Moderate	Severe	Mild	Moderate	Severe
Asymptomatic	C	S	D	C	S	D
Mild	S	S	D	S	S	D
Moderate	S	S	D	S	S	D
Severe	D	D	D	D	D	D

**C** Continue dosing

**S** Suspend dosing until resolution of ARIA-E and stabilization of ARIA-H, resumption of dosing based on patient-specific risk-benefit assessment

**D** Discontinue dosing due to serious symptoms





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#### ARIA Assessment

ARIA Type	Radiographic Severity		
	Mild	Moderate	Severe
ARIA-E	FLAIR hyperintensity confined to sulcus and/or cortex/subcortical white matter in 1 location < 5 cm	FLAIR hyperintensity 5-10 cm, or more than 1 site of involvement, each measuring < 10 cm	FLAIR hyperintensity measuring > 10 cm, often with significant subcortical white matter and/or sulcal involvement; ≥ 1 separate sites of involvement
ARIA-H microhemorrhage	≤ 4 new incident microhemorrhages	5-9 new incident microhemorrhages	≥ 10 new incident microhemorrhages
ARIA-H superficial siderosis	1 focal area of superficial siderosis	2 focal areas of superficial siderosis	> 2 focal areas of superficial siderosis

#### ARIA Imaging Protocols

	Minimum	Recommended	Notes
Field strength	1.5 T	3 T	Use of a consistent field of strength for serial imaging of a given patient is important. Imaging may be performed at 1.5 T if a patient is not a candidate for imaging at 3 T or 3 T scanners are not available at a site.
ARIA-E detection	2D FLAIR	2D or 3D FLAIR	Either 2D or 3D is acceptable, whichever can be performed with consistent quality and optimal CSF suppression.
ARIA-H detection	T2* GRE	T2* GRE (± SWI)	Recommendations for enrollment and dose suspension are based on T2* GRE detection of blood products. SWI may also be performed for confirmation and may be of value to gather data going forward.
Infarct assessment	DWI	DWI	DWI required to differentiate ARIA from acute/subacute infarct and identification of incidental infarcts.

#### References and Abbreviations

3D, 3 dimensional; AD, Alzheimer disease; ARIA, amyloid-related imaging abnormalities; ARIA-E, amyloid-related imaging abnormalities-edema; ARIA-H, amyloid-related imaging abnormalities-hemorrhage; CSF, cerebrospinal fluid; FDA, U.S. Food and Drug Administration; FLAIR, fluid-attenuated-inversion recovery; GRE, gradient echo; MRI, magnetic resonance imaging; SWI, susceptibility-weighted imaging; TE, echo time.

1. Haller S et al. *Radiology*. 2024;310(2):e233381. 2. Cogswell PM et al. *AJNR Am J Neuroradiol*. 2022;43(9):E19-E35. 3. Lecanemab. Prescribing information. Eisai Inc.; 2025. 4. Donanemab. Prescribing information. Eli Lilly and Company; 2024. 5. Cummings J et al. *J Prev Alzheimers Dis*. 2023;10(3):362-377.

