

ALZHEIMER'S DISEASE (AD)



AD is a neurodegenerative disease that causes problems with memory, language and thinking. You may know these symptoms as dementia^{1,2}



Biological changes occur in the brain of people with AD. This includes a build-up of **toxic protein clusters** called **amyloid plaques**, which may lead to **loss of brain function and the symptoms of AD**¹



Amyloid-related imaging abnormalities or "ARIA" are a consequence of the presence of amyloid in cerebral blood vessel walls (cerebral amyloid angiopathy [CAA]). CAA can cause spontaneous ARIA in patients with AD³



Monoclonal antibodies target and **remove toxic amyloid plaque** from the brain to try and slow disease progression.⁴ Monoclonal antibodies that remove amyloid plaque increase the risk of ARIA^{5,6}

ARIA IS A COMMON ADVERSE EVENT OF MONOCLONAL ANTIBODIES THAT REMOVE AMYLOID PLAQUE^{5,6}

ARIA events are believed to be **caused by leakage from clearing amyloid from blood vessels** in the brain⁵

They present as **short-term fluid build-up in the brain** (ARIA-E [edema/effusion]), sometimes with small spots of **bleeding in the brain or on the surface of the brain** (ARIA-H [hemosiderin/hemorrhage])^{5,6}

These changes are visualized on MRI scans. **CT scans** are usually **insufficient** for detecting/visualizing milder signals of ARIA⁵



MRI SCANS ARE NEEDED TO CHECK FOR BRAIN ABNORMALITIES BEFORE TREATMENT AND TO MONITOR FOR ARIA DURING TREATMENT⁶

KEY DISCUSSION POINTS TO HAVE PRIOR TO INITIATION OF MONOCLONAL ANTIBODIES THAT REMOVE AMYLOID



APOE ε4 IS A RISK FACTOR FOR AD AND FOR ARIA^{7,8}

- It is important to discuss testing for *APOE 4* status and provide genetic counselling to address the implications of the findings for the patient and family
- Having one or two copies of a specific gene – *APOE ε4* – is a risk factor for ARIA
- The recommendations on the management of ARIA do not differ between *APOE ε4* carriers and noncarriers



PATIENTS RECEIVING ANTITHROMBOTICS OR THROMBOLYTICS⁹⁻¹¹

- Antithrombotics or thrombolytics are associated with an increased risk of intracerebral hemorrhage
- Intracerebral hemorrhages have been observed in patients receiving monoclonal antibodies that remove amyloid plaque; therefore, **caution should be exercised**
- The patient and care partner should be informed of the possible elevated risk of bleeding in the brain with the use of monoclonal antibodies that remove amyloid plaque

IN MOST CASES, ARIA IS ASYMPTOMATIC.
HOWEVER, SOMETIMES ARIA PRESENTS THESE SYMPTOMS:^{7,12}

MOST FREQUENT



Headache



Confusion
and dizziness



Neuropsychiatric
symptoms



Nausea

LESS FREQUENT



Gait
disturbance



Visual disturbance /
blurred vision

UNCOMMON



Seizure



REMIND PATIENTS TO URGENTLY REPORT SYMPTOMS



MRI FINDINGS FOR ARIA CAN OCCUR IN THE ABSENCE OF SYMPTOMS^{5,7}

Therefore, timely follow-through on scheduled MRI appointments as part of monitoring for ARIA is very important

HOW TO MANAGE IN CASE OF ARIA?

- Most cases of ARIA resolve on MRI without concomitant treatment¹²
- Depending on the severity, monoclonal antibody treatment may continue or be stopped (for a period or indefinitely), with continued MRI monitoring until resolution¹¹ – please refer to the appropriate prescribing information
- In some cases, ARIA can be serious and may require hospitalization or additional treatment for ARIA⁷



ALZ-NET (Alzheimer's Network for Treatment and Diagnostics) is a voluntary provider-enrolled patient registry that collects information on treatments for Alzheimer's disease. For more information please scan the QR code or visit the website: <https://www.alz-net.org/>

This educational piece is to be used as a visual guide for HCPs only; not intended for distribution to patients

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ABBREVIATIONS:

APOE ε4, Apolipoprotein E ε4; AD, Alzheimer's disease; ARIA, amyloid-related imaging abnormalities (includes ARIA-E and ARIA-H); ARIA-E, ARIA-edema/effusion; ARIA-H, ARIA-hemosiderin/hemorrhage; CAA, cerebral amyloid angiopathy; CT, computed tomography; HCP, health care professional; MRI, magnetic resonance imaging.

