Research question: Are serum GFAP levels (1) and their treatment-related changes (2) associated with future PIRA in MS?

1

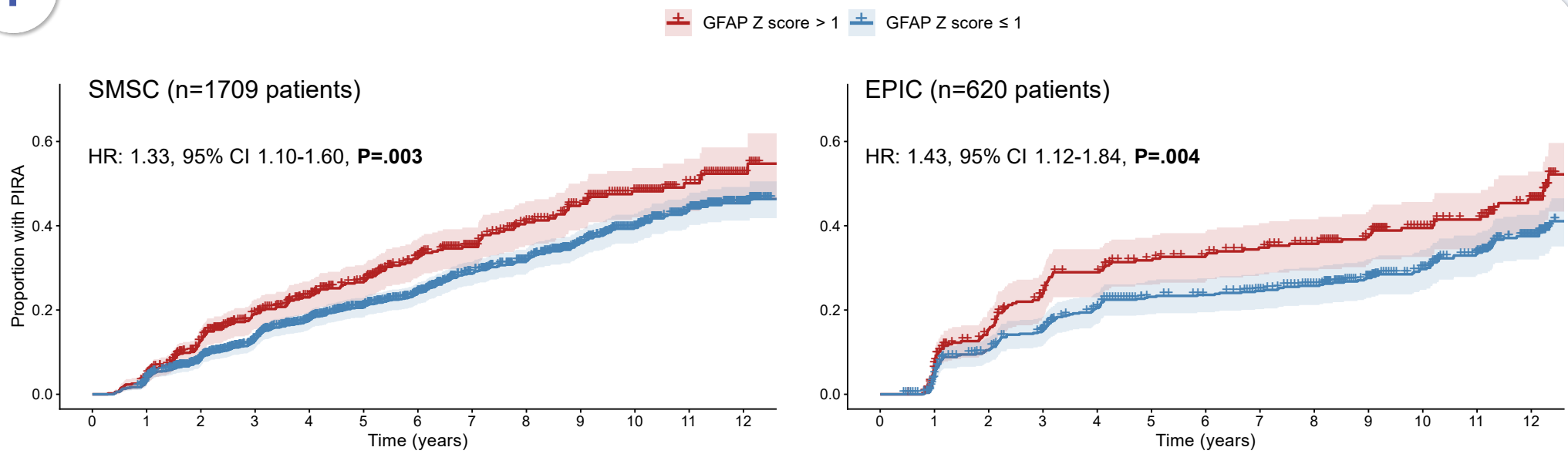
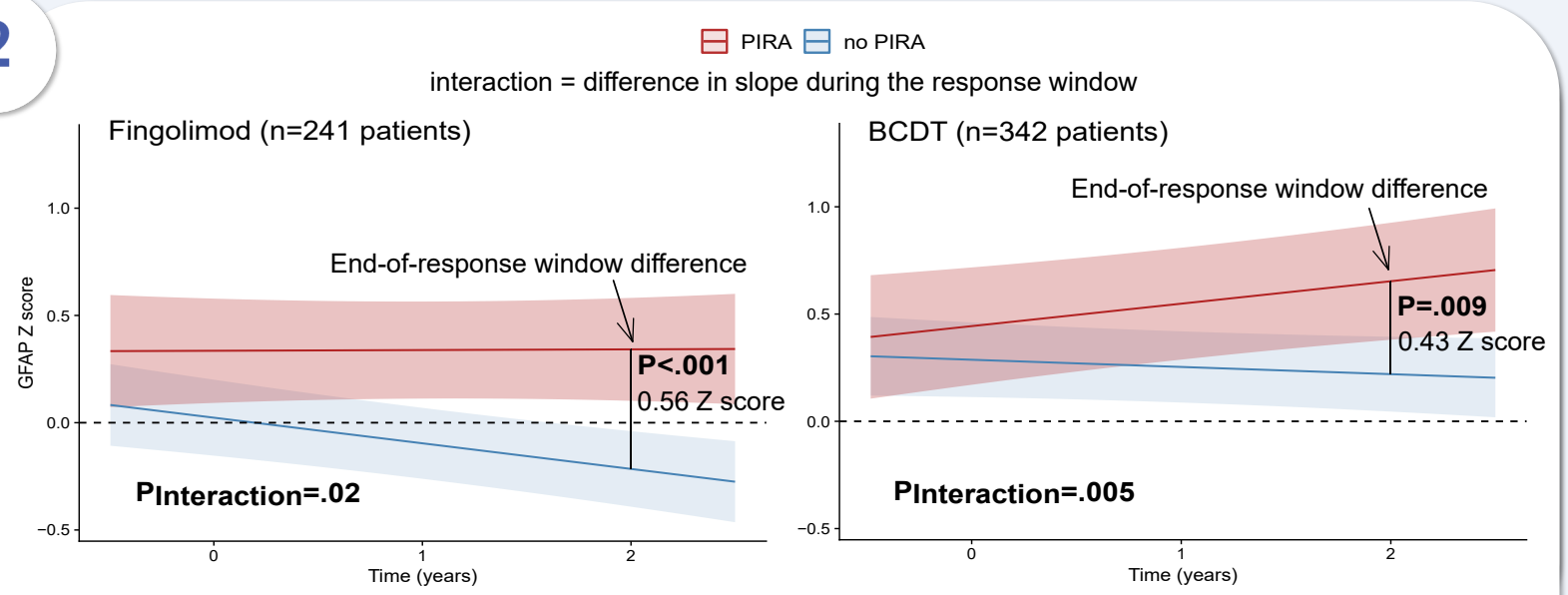


Figure shows long-term PIRA. HRs are unadjusted.

Elevated GFAP was associated with a higher risk of future PIRA in SMSC (33% higher risk) and EPIC (43% higher risk).

2



response window = first 2 years after starting treatment

Steeper GFAP decline during the response window was associated with absence of future PIRA in fingolimod and BCDT treated patients.

Across two large real-world MS cohorts, serum GFAP levels and treatment-related changes anticipate future MS progression, supporting GFAP as a biomarker for personalized disease monitoring.

BCDT=B cell-depleting therapy. EPIC=Expression, Proteomics, Imaging, Clinical. GFAP=glial fibrillary acidic protein. MS=multiple sclerosis. PIRA=progression independent of relapse activity. SMSC=Swiss MS Cohort.