

Magnetic Resonance Spectroscopy Metabolites as Biomarkers of Disease Status in Pediatric Diffuse Intrinsic Pontine Gliomas (DIPG) treated with Glioma-Associated Antigen Peptide Vaccines

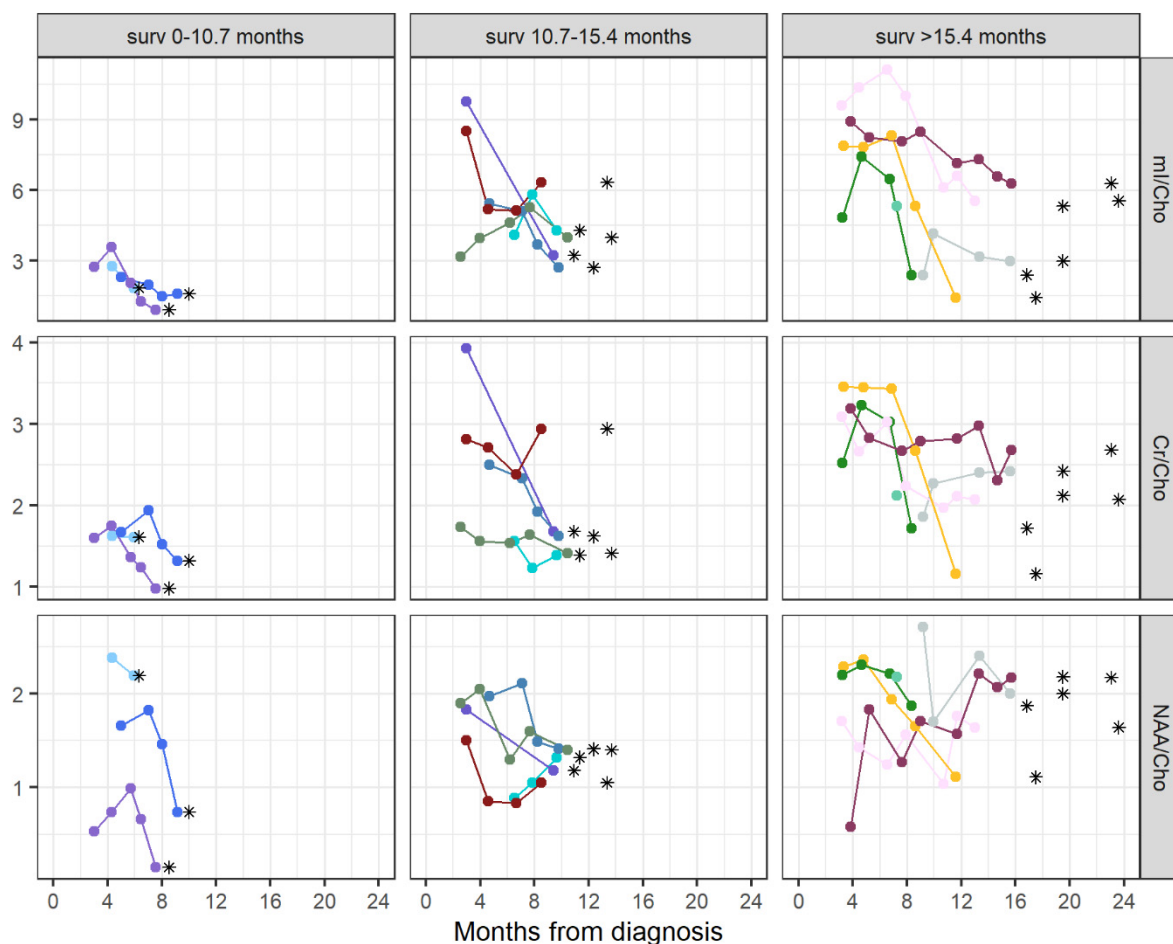


Figure S1. Longitudinal trajectories (relative to date of diagnosis) for metabolite ratios of interest, **Vaccine Cohort** (58 scans in 14 patients). Each patient appears in one of three columns, defined as tertiles of pooled overall survival from the vaccine study and non-vaccine cohort, with 10.7 months coinciding approximately with the median survival for patients treated with irradiation with or without concurrent chemotherapy. {Clymer, 2018 #30; Renfro, 2019 #56}. An immediate terminal decline of mI/Cho is observed in shorter surviving patients. x denotes the time of death, placed for each patient at Y-value of final observed metabolite ratio. *Absolute metabolite levels in above supplemental figure and all following figures are in institutional units (u.i.).*

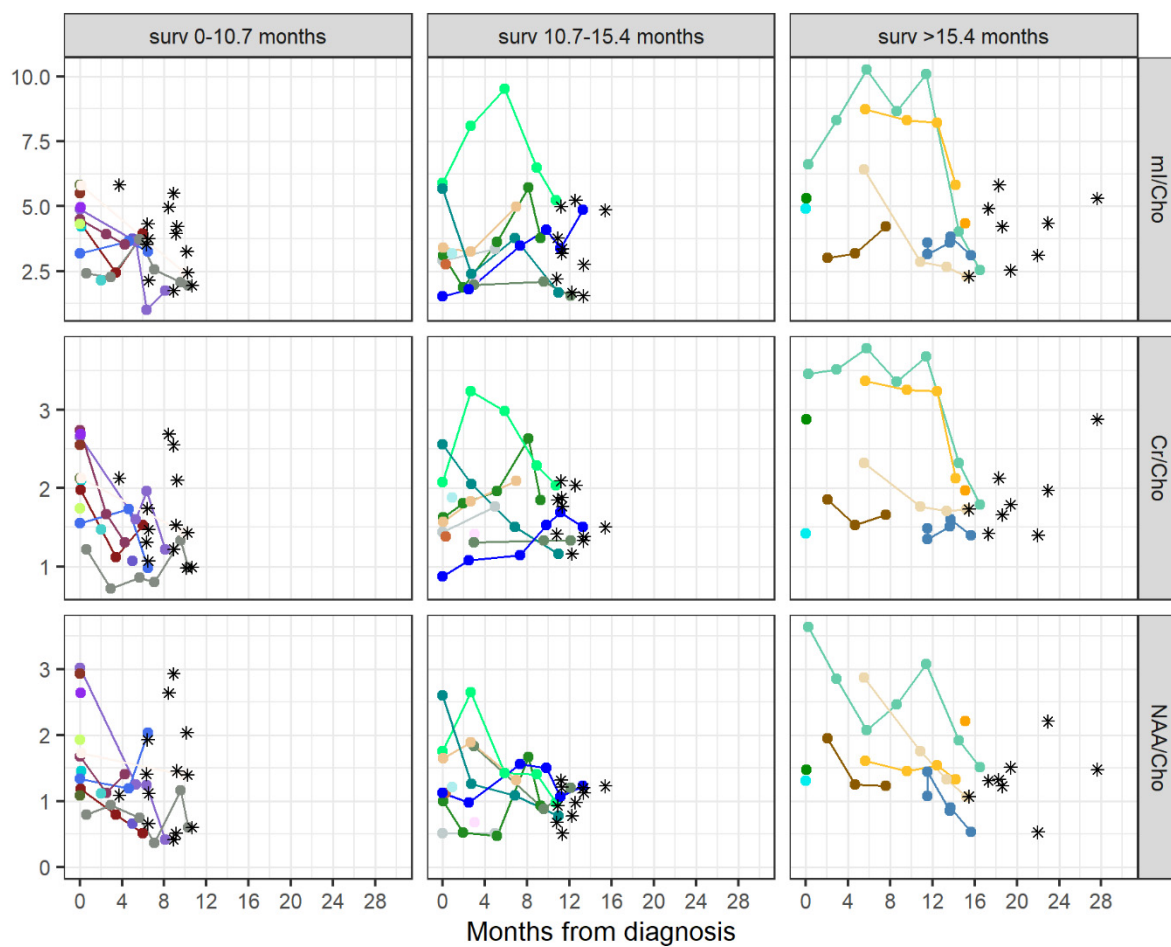


Figure S2. Longitudinal trajectories (relative to date of diagnosis) for metabolite ratios of interest, **Non-vaccine Cohort** (87 scans in 32 patients). Each patient appears in one of three columns, defined by survival (surv) duration. An immediate terminal decline of mI/Cho is observed in shorter surviving patients. x denotes the time of death, placed for each patient at the Y-value of the final observed metabolite ratio. .

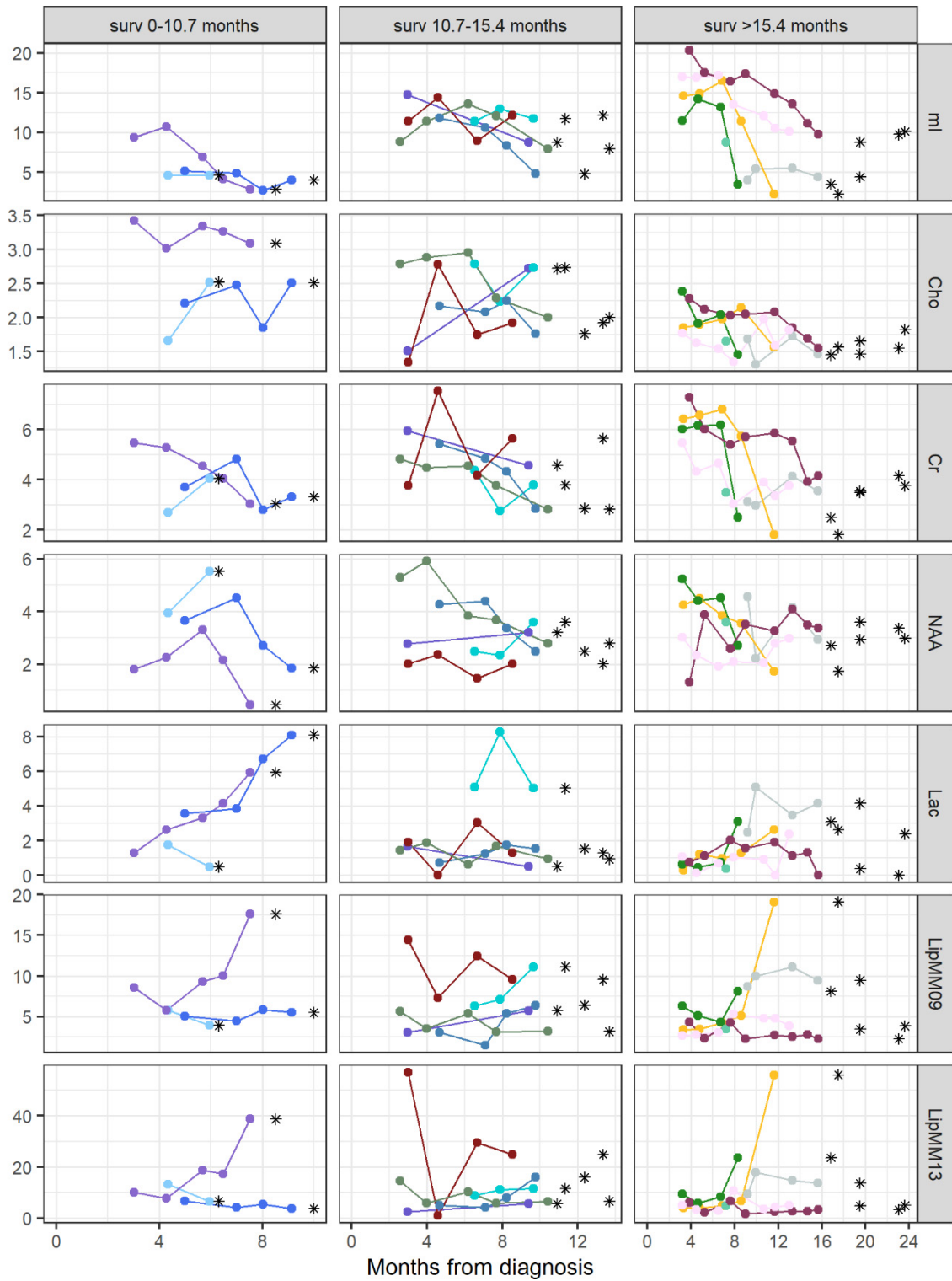


Figure S3. Longitudinal trajectories (relative to date of diagnosis) for individual metabolites, **Vaccine Cohort** (58 scans in 14 patients, see Figure S1 for key). Each row contains values for a metabolite. The three columns sort patients by post-diagnosis survival. x = time of death on X axis, with Y axis value the last measured metabolite value.

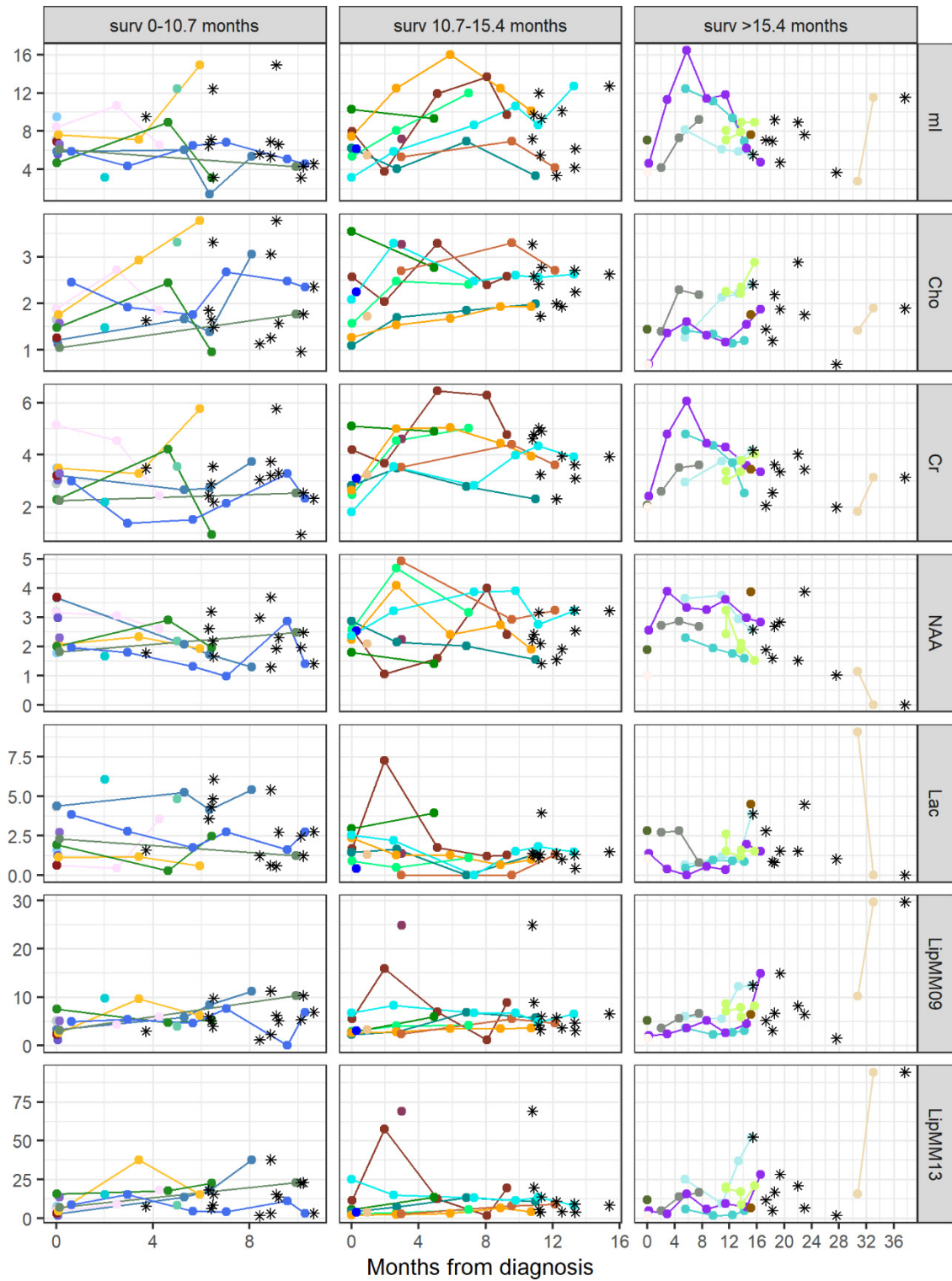


Figure S4. Prospective change (relative to date of diagnosis) for individual metabolites, **Non-vaccine Cohort** (87 scans in 32 patients, see Figure S5 for key). Each row contains values for a metabolite. The three columns sort patients by post-diagnosis survival. x = time of death on X axis, with Y axis value the last measured metabolite value.

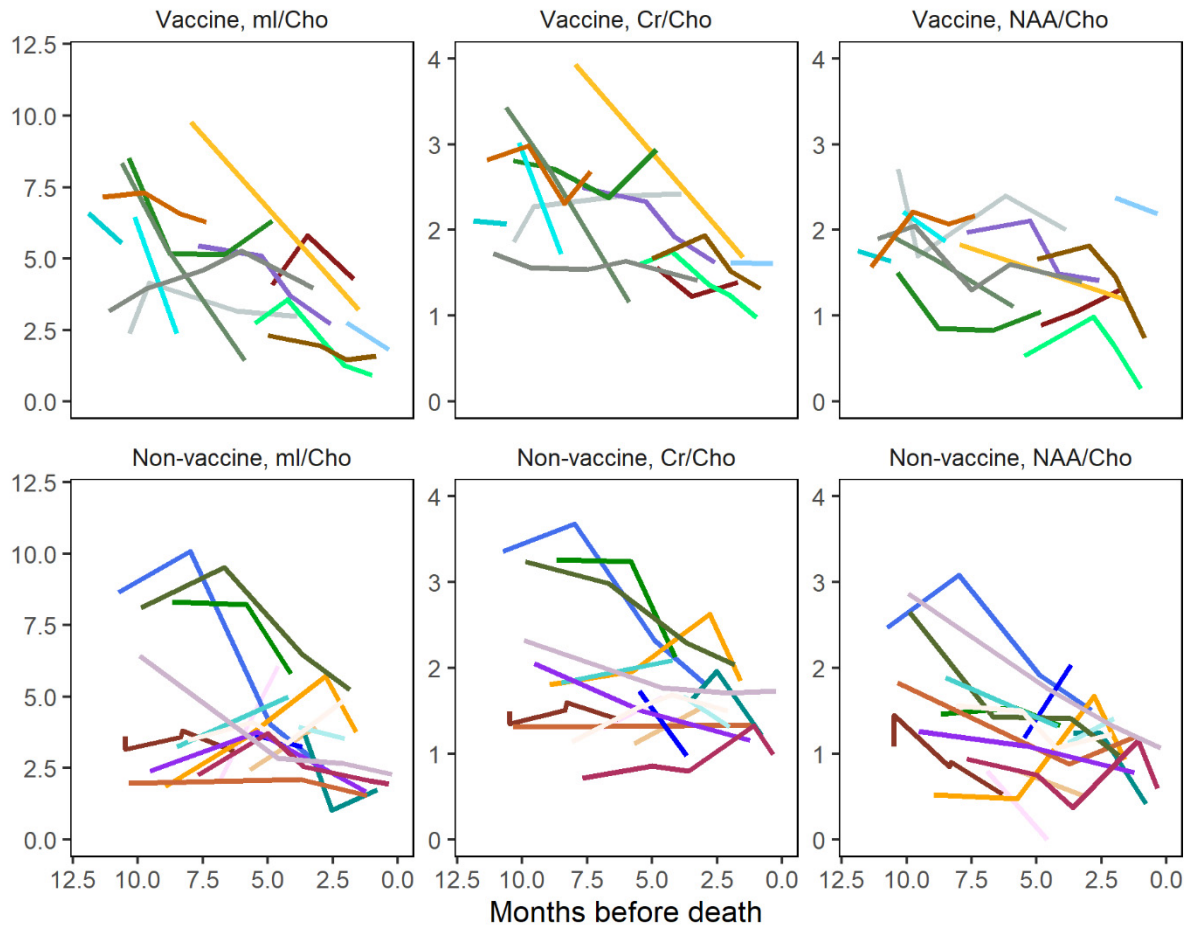


Figure S5. Terminal decline (relative to date of death, X=0) for metabolite ratios of interest measured within 12 months of death, excluding scans at diagnosis: myo-Inositol/choline (left column), creatine/choline (middle), NAA/choline (right column). .

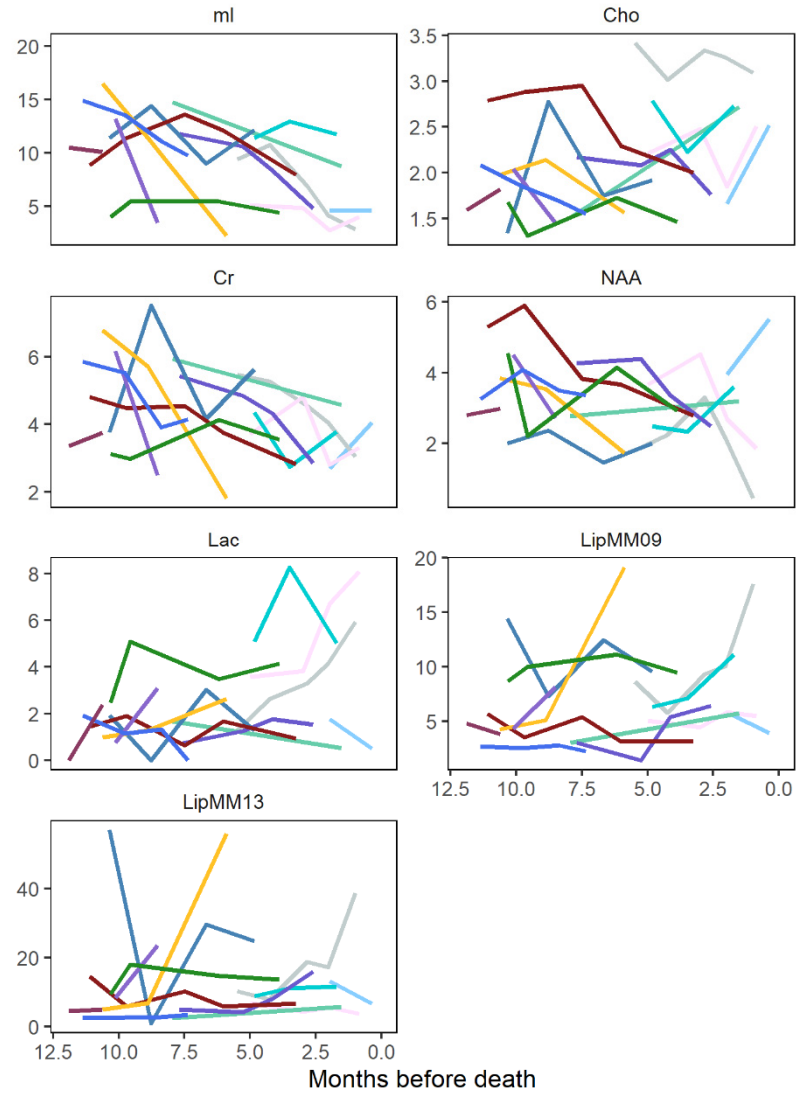


Figure S6. Terminal change (relative to date of death) for individual metabolites (mmol/kg), **Vaccine Cohort** (58 scans in 14 patients, limited to within 12 months of death). ml = myo-inositol; Cho = choline; Cr = creatinine; NAA = N-acetyl-aspartate; Lac = lactate; LipMM09 = lipid intensity at 0.9 ppm, terminal -CH₃; LipMM13 = lipid intensity at 1.3 ppm, terminal -CH₂.

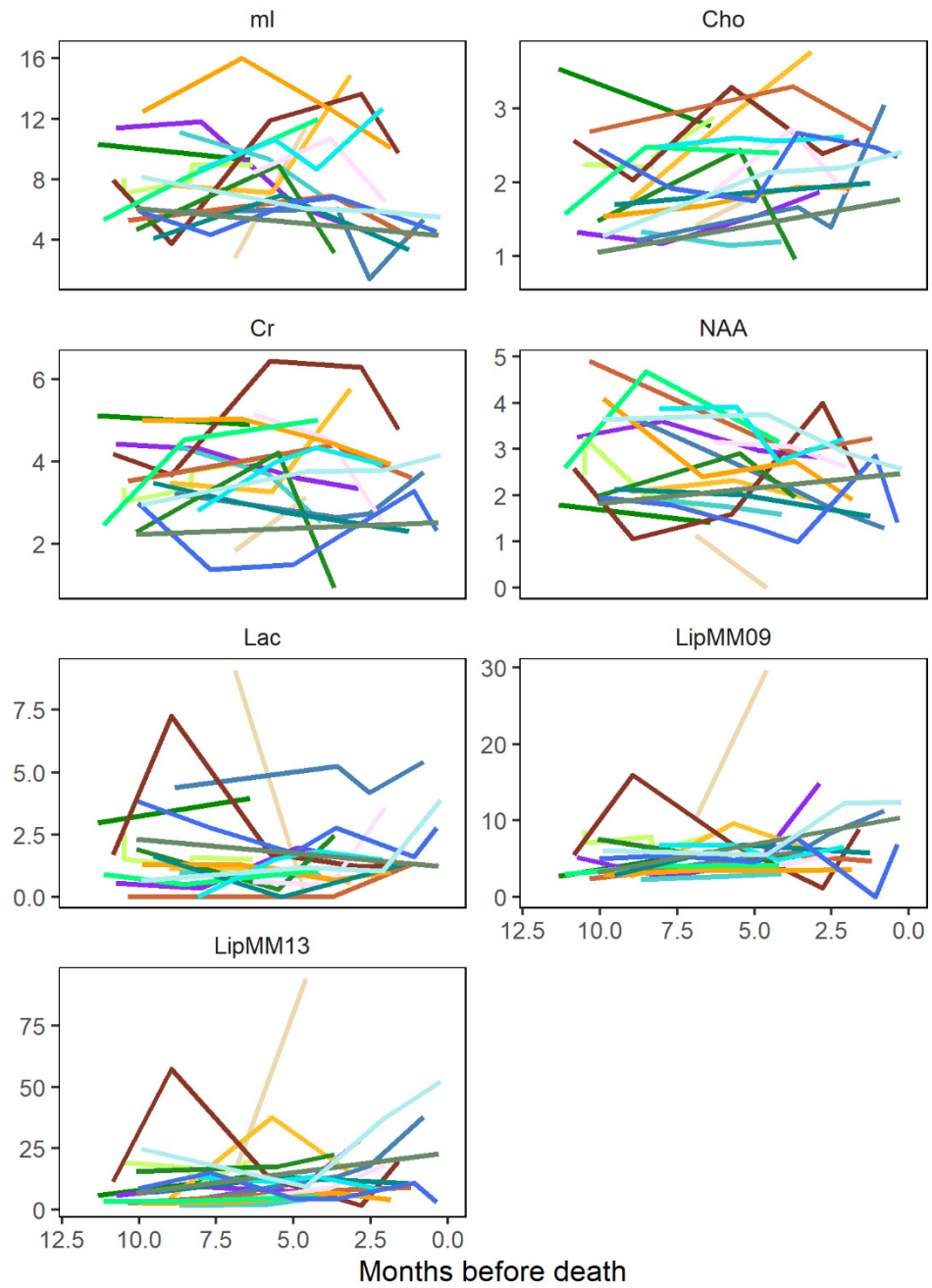


Figure S7. Terminal change (relative to date of death) for individual metabolites (mmol/kg), **Non-vaccine Cohort** (87 scans in 32 patients, limited to within 12 months of death).