

Increased body mass index during therapy for childhood acute lymphoblastic leukemia:
a significant and under-estimated complication

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Table S1: Mixed effects multivariate regression analyses for BMI z-scores

BMI z-score (SDs)	Estimate	SE	p-value
Intercept	0.548	0.282	0.05
Age (years)	-1.059	0.231	5×10^{-6}
Age ² (years ²)	1.630	0.203	2×10^{-15}
Age ³ (years ³)	-0.751	0.0096	8×10^{-15}
Age ⁴ (years ⁴)	0.106	0.015	1×10^{-12}
Sex: Female	-0.735	0.274	0.009
NCI risk: High	-0.887	0.223	2×10^{-4}
Age at diagnosis (years)	0.021	0.023	0.36
BMI z-score at diagnosis (SD)	0.821	0.059	$< 2 \times 10^{-16}$
Total steroid maintenance dose (mg/m ²)	-0.0002	0.002	0.47
Age:Sex(Male) interaction	0.670	0.204	0.001
Age ² :Sex(Male) interaction	-0.134	0.057	0.019
Age:NCI risk interaction	0.349	0.101	6×10^{-4}
Sex(Male):NCI risk(high) interaction	-1.016	0.420	0.018
Age:Age at diagnosis (years) interaction	-0.045	0.011	6×10^{-5}
Sex(Male):Age at diagnosis (years) interaction	0.122	0.048	0.013
Age:BMI z-score at diagnosis (SD) interaction	-0.101	0.029	5×10^{-4}
Age:Total steroid maintenance dose (mg/m ²) interaction	0.0003	0.0001	0.004
Number of observations	2434		
Number of individuals	80		
Residual SD	0.433		
Compound symmetry Rho	-0.000000005		

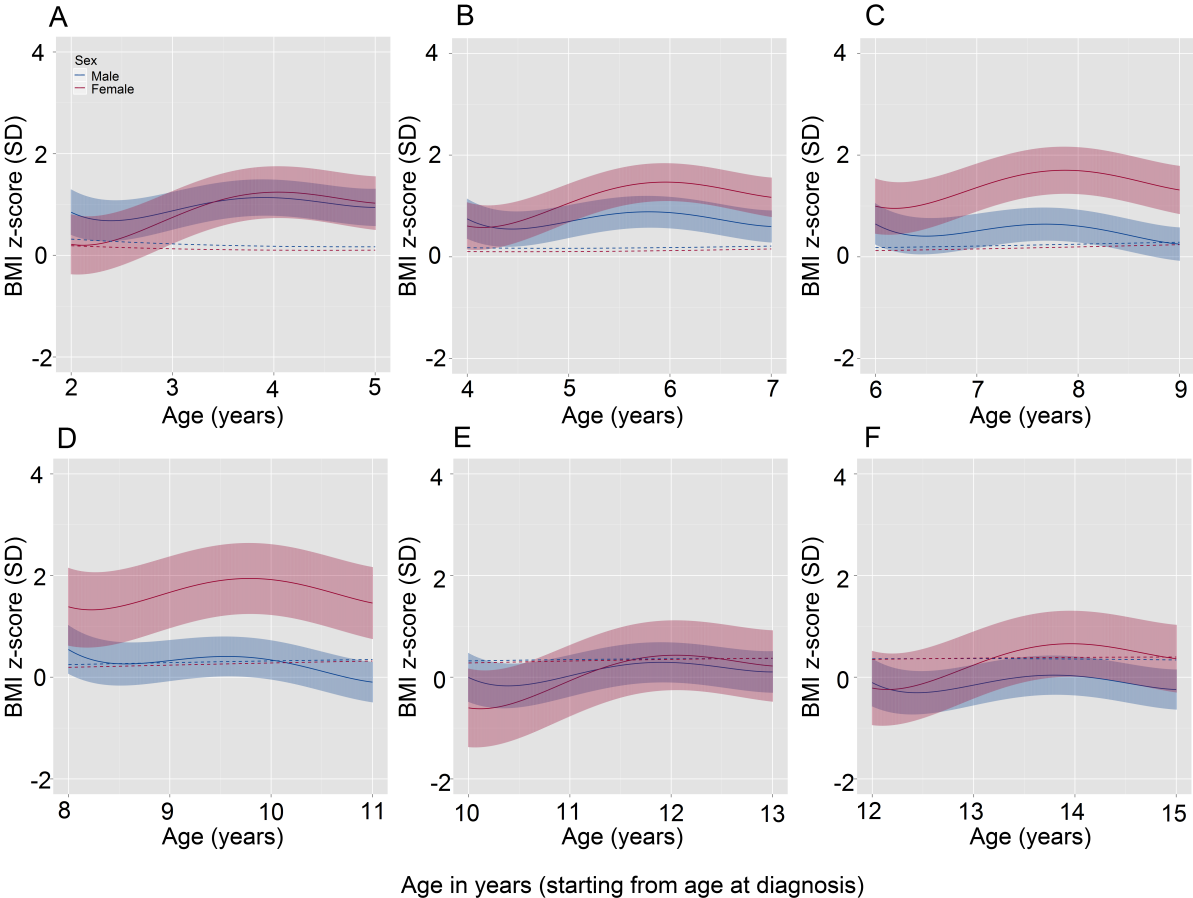


Figure S1

Selected scenarios in the mixed effects model adjusted for sex, age at diagnosis, risk profile and adjusted if both males and females received the same dose of steroids during maintenance and had a BMI z-score of zero at the start of treatment. Predicted means for BMI z-scores and 95% confidence intervals for (A) 2 y at diagnosis with standard risk (B) 4 y at diagnosis with standard risk (C) 6 y at diagnosis with standard risk (D) 8 y at diagnosis with standard risk (E) 10 y at diagnosis with high risk (F) 12 y at diagnosis with high risk ALL. Dotted lines are means of healthy (Raine Study) individuals.