Supplemental Table S8. Sequential model comparison using 10-year time-dependent AUC in the GERA European-ancestral participants. We compared time-dependent AUCs of 10-year absolute risks based on Model 1 (age and first-degree CRC family history) and Model 2 (age, first-degree CRC family history, sex and endoscopy history) with the proposed model (age, first-degree CRC family history, sex, endoscopy history, and polygenic risk score) in GERA European ancestry participants.

Model	AUC	P-value <sup>a</sup>
All participants eligible for screening with age <sup>b</sup> 45-74 years		
Model 1	0.664	0.004
Model 2	0.659	0.001
Proposed model	0.702	Reference
All participants with age <sup>b</sup> 40-49 years and no endoscopy history		
Model 1	0.70	0.24
Model 2	0.75	0.65
Proposed model	0.79	Reference
All European participants		
Model 1	0.70	0.05
Model 2	0.71	0.03
Proposed model	0.72	Reference
<ul><li>a. P-value for comparing the AUC estimates of a reduced model to the proposed PRS-enhanced model.</li><li>b. Age at study entry.</li></ul>		