Table S1 Summary of NLST files present/absent and exclusions

Exclusion reason	# of exclusions	
	Benign	Cancer
Nodule not in parenchyma	94	5
Corrupted file	2	0
Multiple nodules	20	5
Completely calcified nodule	2	0
No full scan	6	0
No nodule, only linear scar	1	0
No solid component	5	0
Poor quality scan	4	0
Nodule <2 mm	1	0
Pleural based lesion	0	1
Nodule larger than 20 mm	0	1
Total exclusions	135	12
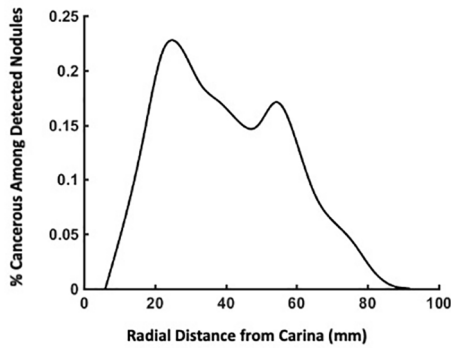
Figure S1 Risk of cancer in an indeterminate nodule by radial distance from the carina.

Table S2 Performance of models in the NLST

	Derivation (AUC)	Validation (AUC)
Geospatial		
T0	0.85	0.84
T1/2	0.81	0.85
Combined	0.83	0.85
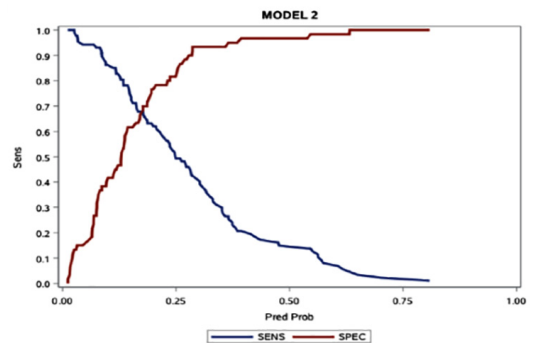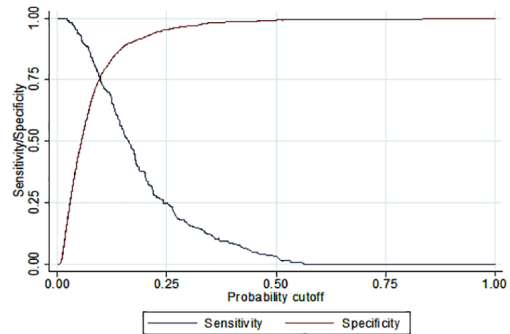
Figure S2 Sensitivity and specificity plotted *vs.* probability, as predicted by the Geospatial model. The model was applied to the NLST testing set (A) and replicated in the DECAMP cohort (B).