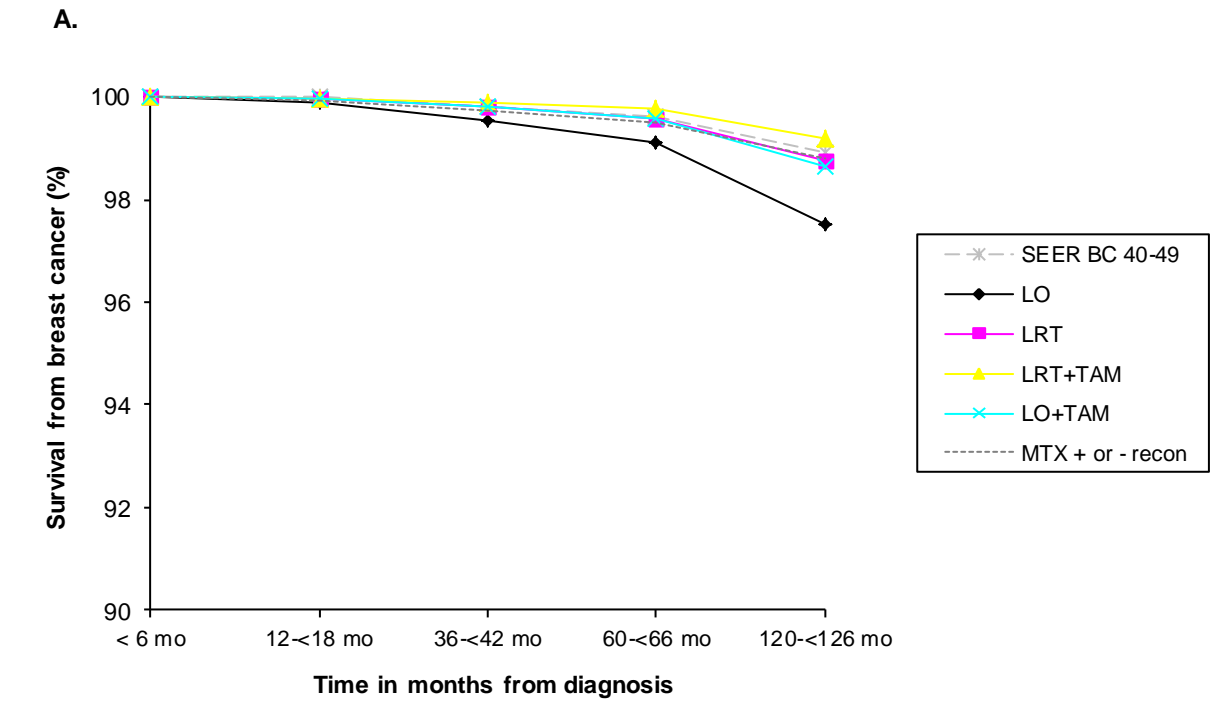
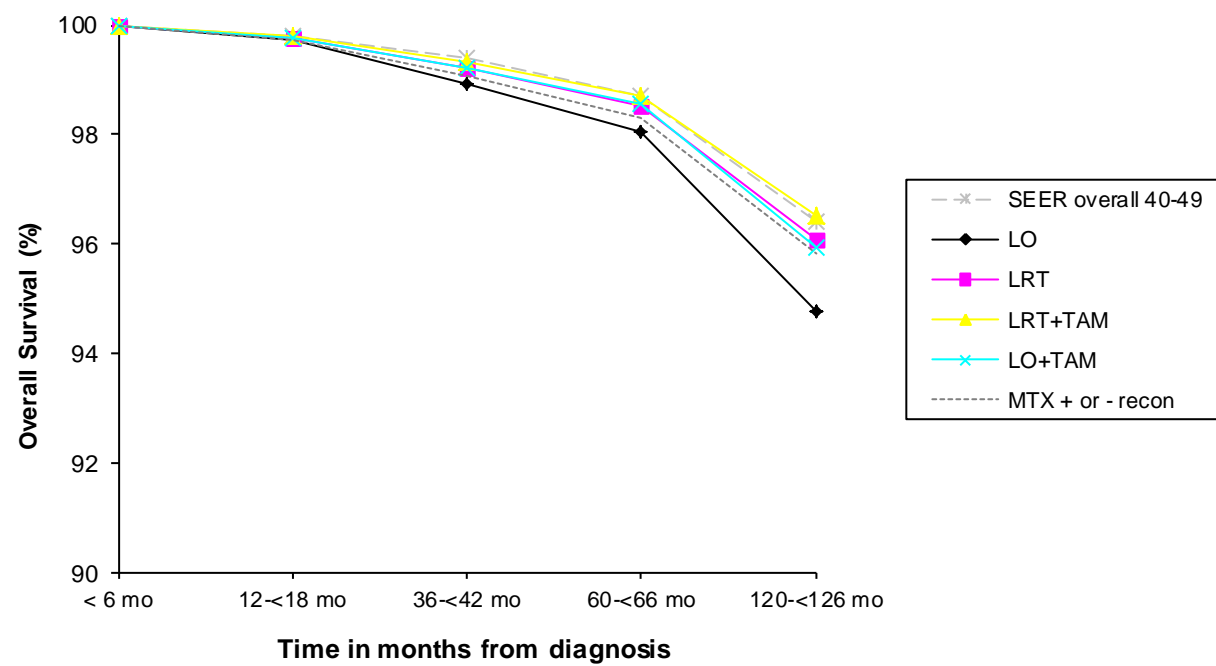


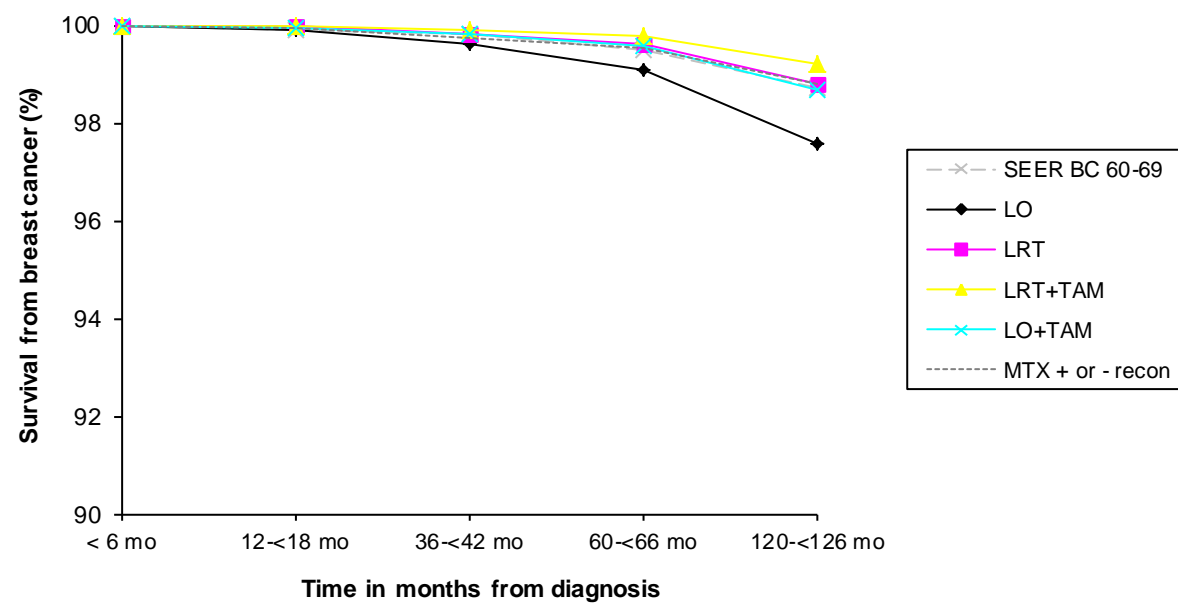
Supplementary Figure 1. Model validation. SEER DCIS breast-cancer specific- and overall survival rates compared to our model results at different ages of diagnosis. **A.** Breast-cancer specific survival at 45 years of age at diagnosis, **B.** Overall survival at 45 years of age at diagnosis, **C.** Breast-cancer specific survival at 60 years of age at diagnosis, **D.** Overall survival at 60 years of age at diagnosis, **E.** Breast-cancer specific survival at 70 years of age at diagnosis, and **F.** Overall survival at 70 years of age at diagnosis.



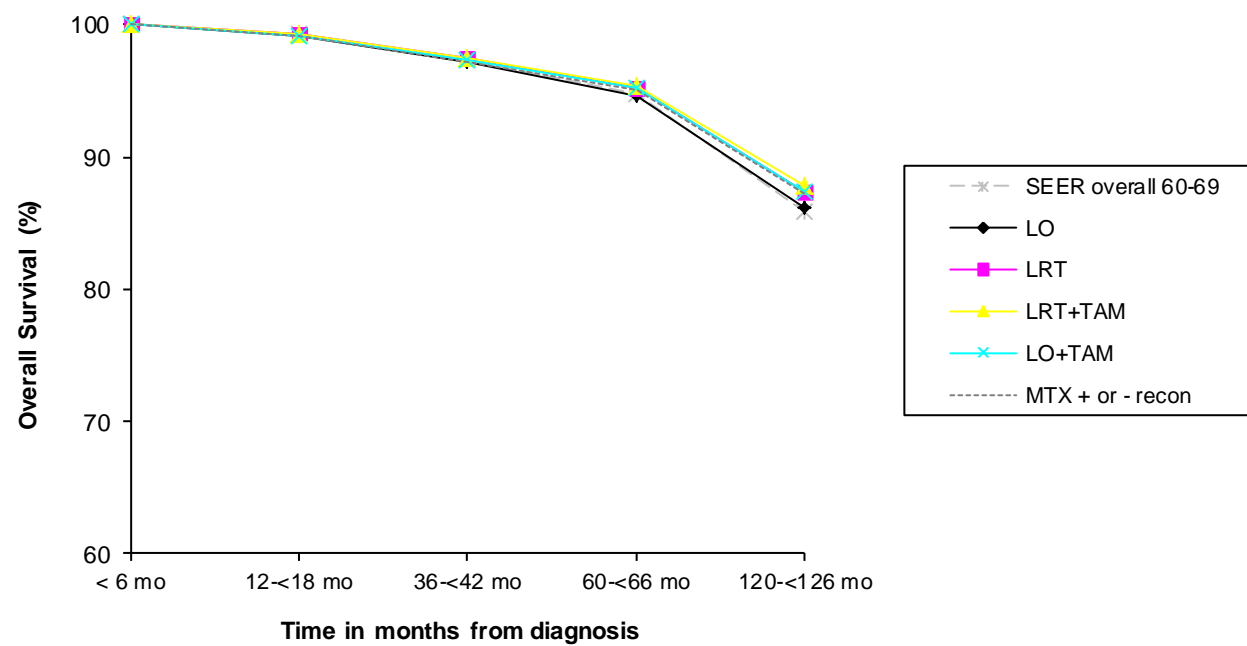
B.



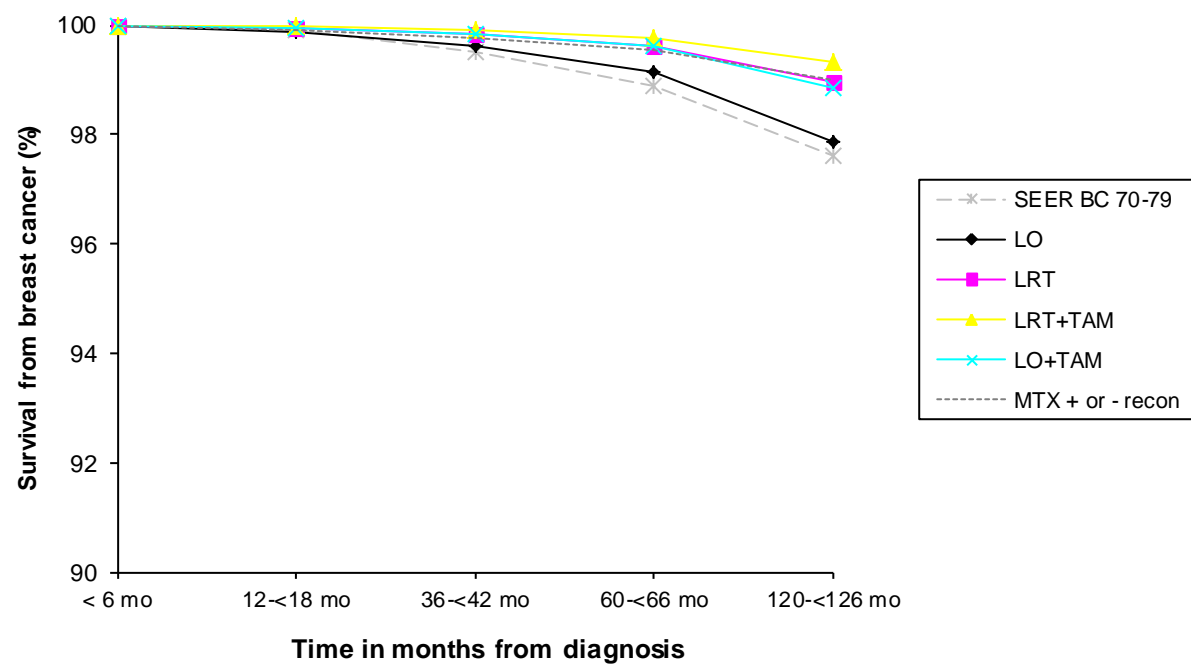
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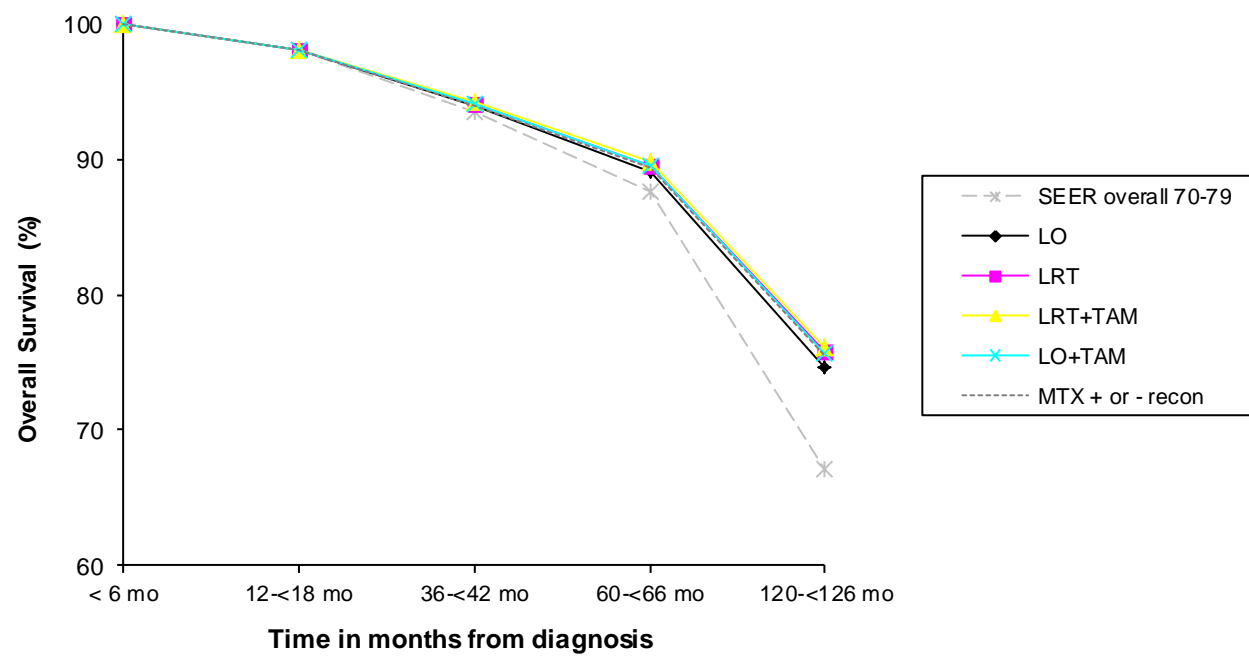
D.



E.



F.



Supplementary Table 1. Estimated survival in years for lumpectomy with and without radiation for selected ages at detection when using age-specific recurrence rates

	45-year old woman			60-year old woman			70-year old woman		
Treatment choices	Disease-free	Invasive disease-free	Overall	Disease-free	Invasive disease-free	Overall	Disease-free	Invasive disease-free	Overall
Lumpectomy	24.0	29.0	36.1	16.7	19.6	23.5	12.1	14.0	16.3
Lumpectomy with radiation	25.8	30.6	36.4	19.6	21.4	23.9	14.1	15.2	16.6