**Supplementary Table S7. Sensitivity analyses accounting for nodal and distant metastatic burden**

## Panel A: Metastatic-burden-adjusted model, *n* = 47

| Model component | Estimate | 95% CI | p value |
|---|---|---|---|
| Intercept | 0.470 | −0.273 to 1.212 | 0.209 |
| log10 dominant tumor diameter | 1.447 | 0.734 to 2.161 | <0.001 |
| Male sex | 0.333 | −0.071 to 0.736 | 0.104 |
| log(1 + metastatic lymph-node count) | 0.172 | −0.048 to 0.393 | 0.122 |
| Documented M1 status | −0.332 | −0.897 to 0.232 | 0.241 |
| Model $R^2$ | 0.483 | | |
| Adjusted $R^2$ | 0.434 | | |

## Panel B: Concordance

| Concordance metric | Result |
|---|---|
| Overall concordance | 40/47 (85.1%) |
| Cohen's kappa | 0.776 |

## Panel C: pN0 and no documented distant metastasis, *n* = 23

| Model component | Estimate | 95% CI | p value |
|---|---|---|---|
| Intercept | 0.120 | −0.699 to 0.940 | 0.763 |
| log10 dominant tumor diameter | 1.912 | 1.160 to 2.664 | <0.001 |
| Model $R^2$ | 0.571 | | |
| Adjusted $R^2$ | 0.550 | | |

Only two lymphovascular invasion events and no perineural invasion events occurred in the restricted pN0 subgroup without documented distant metastasis; therefore, no secretory-category versus pathology analysis was performed.