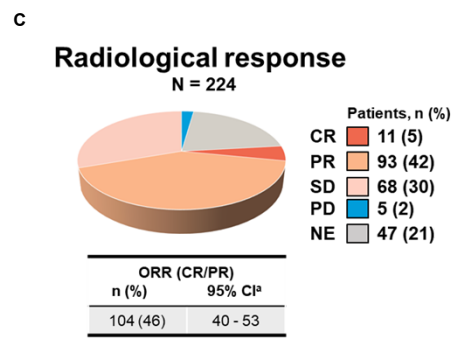
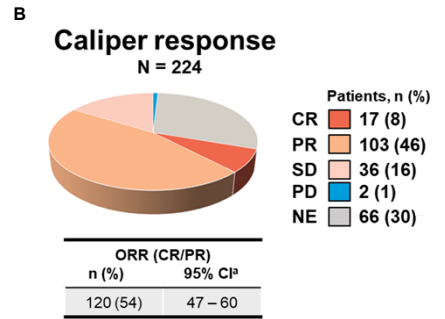
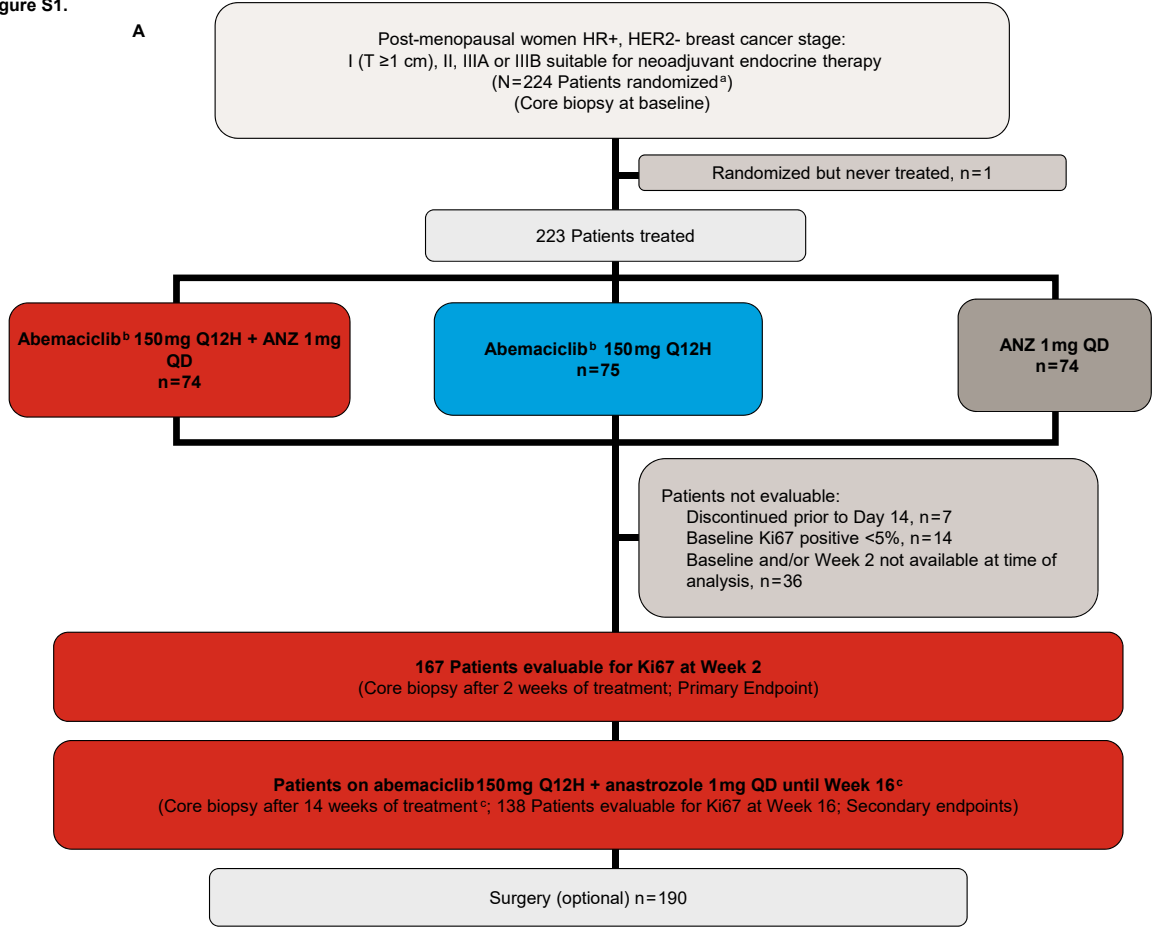


Supplementary Figure S1.



**D**

**Pathological response (pCR)**  
n=190

	n	%	90% CI <sup>a</sup>	P-value <sup>a</sup>
pCR	7	4	2, 100	0.8

**Supplementary Figure S1. A.** neoMONARCH consort diagram. Patients were randomized 1:1:1 to three treatment arms. Biopsy samples were collected at baseline, and at week 2 and 16 of treatment (EOT). Tumor assessment and biopsy samples were performed as indicated. Surgery was not required for this study. Definitive surgery may be planned at the conclusion of the neoadjuvant therapy or after discontinuation of treatment. <sup>a</sup>Stratified for PR status, tumor size; <sup>b</sup>Loperamide was administered prophylactically with each abemaciclib dose for the first 28 days and then at the investigator’s discretion; <sup>c</sup>Participants who experienced benefit following 14 weeks may have remained on neoadjuvant therapy for up to 8 additional weeks. **B-D.** Clinical and radiologic, and pathologic responses in neoMONARCH. Caliper (**B**) and radiologic (**C**) response were evaluated from the ITT population by RECIST1.1. ORR was calculated from the ITT population. **D.** Pathological response (pCR) is defined as absence of invasive disease in the breast and sampled axillary lymph nodes. pCR rate is reported as the percentage of patients who underwent surgery (n=190) and achieved a pCR (n=7). <sup>a</sup>P-value was calculated by 1-sided right tailed binomial exact test. Abbreviations: ANZ, anastrozole; CR, complete response; EOT, end of treatment; ORR, overall response rate; PD, progressive disease; PR, partial response; QD, every day; Q12H, every 12 hours; SD, stable disease.