

Table SI. Search concepts.

Concept	Terms
Disease	Triple-negative breast cancer; TNBC; triple negative breast neoplasms
Clinical setting	Neoadjuvant; preoperative; perioperative; post-neoadjuvant; residual disease; stage II; stage III
Treatment	Anthracycline; taxane; dose-dense AC-T; platinum; carboplatin; pembrolizumab; capecitabine; olaparib; radiotherapy; antibody-drug conjugate
Biomarkers and residual risk	pCR; residual cancer burden; ctDNA; molecular residual disease; BRCA1/2; HRD; genomic scar; LOH; TAI; LST; RAD51; PD-L1; tumor-infiltrating lymphocytes
Outcomes and boundaries	Pathological complete response; event-free survival; invasive disease-free survival; overall survival; adverse events; escalation; de-escalation

Table SII. Database search strings^a.

Source	Search strategy
PubMed/MEDLINE	(‘Triple Negative Breast Neoplasms’[Mesh] OR ‘triple-negative breast cancer’[tiab] OR ‘triple negative breast cancer’[tiab] OR TNBC[tiab]) AND (‘Neoadjuvant Therapy’[Mesh] OR neoadjuvant[tiab] OR preoperative[tiab] OR perioperative[tiab] OR post-neoadjuvant[tiab] OR ‘residual disease’[tiab]) AND (chemotherap*[tiab] OR anthracycline*[tiab] OR taxane*[tiab] OR platinum[tiab] OR carboplatin[tiab] OR pembrolizumab[tiab] OR immunotherap*[tiab] OR capecitabine[tiab] OR olaparib[tiab] OR radiotherap*[tiab] OR ‘antibody-drug conjugate’[tiab] OR ‘antibody drug conjugate’[tiab] OR ctDNA[tiab] OR ‘circulating tumor DNA’[tiab] OR ‘residual cancer burden’[tiab] OR BRCA1[tiab] OR BRCA2[tiab] OR ‘homologous recombination deficiency’[tiab] OR HRD[tiab] OR RAD51[tiab])
ClinicalTrials.gov	Condition/disease: triple-negative breast cancer; Other terms: neoadjuvant OR perioperative OR post-neoadjuvant OR residual disease; additional targeted searches by trial name or intervention (including KEYNOTE-522, A-BRAVE, SWOG S1418/NRG-BR006, OptimICE-RD, TROPION-Breast03, and TROPION-Breast04)

^aLast search date: June 15, 2026.