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administered. In this exploratory analysis of the GIM2 trial (Del Mastro et al, Lancet 2015), we investigated the efficacy of DD CT in the subgroup of HER2+ BC pts with or without subsequent exposure to T.

Methods: Using a 2x2 factorial design, the GIM2 trial randomized node-positive early BC pts to receive 4 cycles of (fluorouracil)epirubicin/cyclophosphamide (F)EC every 2 (DD) or every 3 (standard interval [SI]) weeks followed by 4 cycles of DD or SI paclitaxel (P). The same number of cycles (4 (F)EC and 4 P) and doses (FEC 600/90/600 mg/ m2, P 175 mg/m2) were used in all treatment arms. After the approval of adjuvant T, protocol was amended in April 2006 to mandate use of T for 1 year after CT completion in all HER2+ pts. The efficacy of DD CT in terms of disease-free survival (DFS) and overall survival (OS) was compared between HER2+ pts with or without subsequent exposure to T and those with HER2-negative/HER2-unknown (HER2-/ukn) status. Results: Out of 2,003 pts randomized to DD or SI CT in the GIM2 study, HER2 status was positive in 452 (22.6%) pts, negative in 1,243 (62.0%) and unknown in 308 (15.4%). Among 452 pts with HER2+ disease, T was administered to 132 (29.2%) pts. Overall median follow-up was 8.1 years (interquartile range: 7.0-9.3). There was no significant interaction between T therapy and the effect of DD CT, (p_{interaction}=0.603 for DFS and p_{interaction}=0.776 for OS); however, among pts treated with T, the effect of DD CT appeared to be smaller as shown in the table.

Table: 900			
	% 7-year DFS SI	% 7-year DFS DD	HR (95% CI)
HER2+ NO trastuzumab	67.0	72.1	0.84 (0.56-1.24)
HER2+ with trastuzumab	72.3	70.4	0.80 (0.40-1.59)
HER2-/ukn	73.3	79.9	0.72 (0.59-0.88)
	% 7-year	% 7-year	
	OS SI	OS DD	
HER2+ NO trastuzumab	78.6	85.2	0.67 (0.39-1.16)
HER2+ with trastuzumab	86.1	84.9	1.04 (0.36-3.00)
HER2-/ukn	85.3	90.9	0.64 (0.49-0.84)

Conclusions: In HER2+ early BC pts, DD adjuvant CT appears to have a role only in pts without subsequent exposure to T.

Clinical trial identification: NCT00433420.

Legal entity responsible for the study: GIM (Gruppo Italiano Mammella) Study

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The role of dose-dense (DD) adjuvant chemotherapy (CT) in HER2positive (HER2+) early breast cancer (BC) patients (pts) before and after the introduction of trastuzumab (T): Exploratory analysis of the GIM2

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Background: DD adjuvant CT is standard of care in high-risk early BC pts. However, the role of DD CT in HER2+ BC pts remains uncertain, particularly when T is