INTRODUCTION: Despite the fact that people older than 65 years of age have the highest incidence of developing breast cancer, these patients are excluded from clinical trials in most cases. Furthermore, most physicians tend towards therapy regimens without the use of dose-dense, highly active taxane-based treatments because of a lack of data regarding toxicities of these compounds in older patients. METHODS: Pooled side-effect data were analyzed from four prospective, randomized clinical trials in which patients of different age groups (64 years) with primary breast cancer received taxane-based chemotherapy. RESULTS: Dose delays, dose reductions, hospitalization, and therapy discontinuation increased with age. Hematologic toxicities and some nonhematologic toxicities were generally more common in older patients. Leucopenia increased from 55.3% in patients aged 64 years (P<0.001), and neutropenia increased from 46.9% to 57.4% (P<0.001). There was no difference, however, in clinically more relevant febrile neutropenia between the different age groups. Thrombopenia shows a similar age-dependent increase, whereas there is no difference between the age groups concerning anemia. Hot flushes and elevated liver enzymes decreased with increasing
age. CONCLUSIONS: The present pooled analysis of a substantial cohort of older primary breast cancer patients demonstrates that taxane-containing (neo)adjuvant chemotherapy is feasible in older patients and that toxicity can be reduced by sequential therapy regimens.