Background A drug-related problem (DRP) is defined according to the Pharmaceutical Care Network Europe Foundation (PCNE) as an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes. Although chemotherapy in breast cancer improves the patient’s condition, its benefit can be compromised by DRPs. Pharmaceutical care is therefore important in identifying, preventing and resolving the DRPs.

Purpose The aim of this study was to investigate drug related problems in breast cancer patients receiving chemotherapy in Ahmadu Bello University Teaching Hospital, Nigeria.

Method The study was a retrospective cross sectional study on breast cancer patients receiving chemotherapy at Ahmadu Bello University Teaching Hospital, Nigeria. Patients’ files and treatment charts were reviewed for a period of 12 months (July, 2015 to June, 2016). DRPs were identified and categorized using the Pharmaceutical Care Network Europe Classification of DRPs (PCNE V. 6.2). Pearson Chi-square test was used to determine the association between risk factors such as age, co-morbidity, and number of drugs with the DRPs.

Findings A total of 340 DRPs were identified in 45 out of 50 screened breast cancer patients within the study period which gave a prevalence of 90.0% and on average 8 DRPs per patient. Cyclophosphamide-based regimens were mostly utilized (68%). The most common problems were treatment effectiveness (30%) and adverse reactions (28%). Meanwhile, the most common causes were drug interaction (12.6%), contraindication (8.6%), lack of therapeutic drug monitoring (8.6%), and drug not administered (8.6%). The most common DRP risk factors identified were older age (76%), polypharmacy (84.0%) and hypertension (29.3%) which showed a statistical association with DRPs.

Conclusion The study showed that drug related problems were common in breast cancer patients receiving chemotherapy at Ahmadu Bello University Teaching Hospital, Nigeria. This demonstrated the importance of routine medication review and the need of pharmacist intervention in a multidisciplinary team in the management of breast cancers.