**Impact of Clinical Pharmacist-Led Medication Review on the Prevention of Chemotherapy-Induced Nausea and Vomiting in Breast Cancer Patients**

**Chau T.N. Dieu 1** , Hao T.L. Hoang 1, Hao T.H. Nguyen 1, Giang Q. Nguyen 2 , Hai T. Nguyen 2 , Ha T. Le 3.

Department of Pharmacy, Hanoi Oncology Hospital 1 , Hanoi, Vietnam;

Department of Pharmacology and Clinical Pharmacy, Hanoi University of Pharmacy 2 , Hanoi, Vietnam;

Department of Medical Oncology for Breast and Lung Cancers, Hanoi Oncology Hospital 3 , Hanoi, Vietnam.

**Background and aims.** Chemotherapy-induced nausea and vomiting (CINV) affects up to 80% of patients. Although guidelines exist for CINV prevention, adherence in practice remains suboptimal, particularly in Vietnam. Clinical Medication Review (CMR), the most comprehensive review type per PCNE classification, has shown benefits internationally but is not widely applied in Vietnam’s oncology settings. This study aimed to assess the impact of CMR conducted by clinical pharmacists on CINV prevention in breast cancer patients at Hanoi Oncology Hospital.

**Methods.** A prospective before-and-after study was conducted in breast cancer patients receiving intravenous chemotherapy without other concurrent treatments at the Department of Medical Oncology for Breast and Lung Cancers, Hanoi Oncology Hospital. Patients in Phase 1 (Dec 16, 2024–Jan 16, 2025) were evaluated before CMR implementation, and those in Phase 2 (Mar 16–Apr 16, 2025) were assessed after. Data collection included medical history, clinical records and MAT questionnaire interviews.

**Results.** Among 187 patients in Phase 1, 28.34% received high emetogenic chemotherapy (HEC), 14.97% moderate emetogenic chemotherapy (MEC), and 56.69% low emetogenic chemotherapy (LEC). Almost all patients, regardless of emetogenic risk, were prescribed a regimen combining a 5-HT3 receptor antagonist and dexamethasone for acute CINV prevention. Only 25% of MEC and 32.08% of HEC patients received prophylaxis for delayed CINV. CINV control was achieved in 30.2% of HEC and 57.1% of MEC patients. In Phase 2, among 195 patients, 24.62% received HEC, 13.84% received MEC, and the remainder were on chemotherapy regimens with low or very low emetogenic risk. CINV control rates increased to 58.33% in HEC and 62.96% in MEC groups. CMR implementation significantly improved guideline adherence and reduced the incidence of CINV.

**Conclusion.** Clinical pharmacists’ involvement through CMR enhanced antiemetic appropriateness and reduced CINV incidence. These findings support integrating clinical pharmacists into oncology teams to improve supportive care in chemotherapy.