

PHARMACOECONOMIC EVALUATION OF FULVESTRANT AS COMPARED WITH CMF CHEMOTHERAPY FOR LOCALLY ADVANCED BREAST CANCER TREATMENT IN POSTMENOPAUSAL PERIOD

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Introduction. Use of fulvestrant an estrogen receptor antagonist is complicated by its high cost. Actual treatment practice of metastatic breast cancer in Ukraine is chemo-therapy (ChT) including CMF regime (cyclophosphamide + methotrexate + fluor-ouracil).

Methods of research. Pharmacoeconomic evaluation of fulvestrant (500 mg once monthly) therapy versus CMF ChT was conducted. The cost-effectiveness analysis with time horizon of 1 year was used. Direct costs were taken into account with discount rate of 3% includes cost of medical products, cost of medical devices, adverse events (AEs) of 3-4 degree of severity (febrile neutropenia, diarrhea, vomiting). Additional calculation includes patients staying at hospital during basic therapy and AEs treatment. Indirect costs were not taken into account because all patients were at retirement age and GDP losses were insignificant. Prices for medicines and medical products are used in accordance with the data of the existing registers of wholesale prices. The cost of staying patients is determined by the official website of the private clinic «Boris». The cost of AEs treatment were calculated based on additional search strategy in Pubmed data base. The incremental cost-effectiveness ratio (ICER) for fulvestrant compared to CMF ChT was calculated according to the formula: total treatment costs (fulvestrant) - total treatment costs (CMF)/clinical efficacy (fulvestrant) - clinical efficacy (CMF). As a measure of the clinical efficacy the indicator of overall survival (OS) was used.

Results. The total direct cost of fulvestrant treatment is 217 906,54 UAH compare with 258 969,23 UAH CMF treatment. The overall survival of patients in fulvestrant treatment is 1,875 years, and CMF is 1,5 years. ICER = -109 497,84 UAH for one additional life year saved.

Conclusion. Fulvestrant treatment (500 mg once monthly) for locally advanced or metastatic ER (+) HER2 (-) breast cancer in postmenopausal women with recurrence or progression of the disease after the application of the first line of hormonal therapy (nonsteroid antiestrogens and aromatase inhibitors) and in the absence of the visceral crisis is cost-effective therapy in compared with CMF ChT with clinical benefits.