

Title: ADHERENCE TO ORAL ESTROGEN REPLACEMENT THERAPY (ERT):
PROBLEM VS. SOLUTION

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Objective: The problem of medication non-adherence is seen across all medications including estrogen replacement therapy (ERT), possibly because of the controversies surrounding its use in women. The purpose of this study was to measure the impact of the adherence programs in improving medication adherence with ERT. **Methods:** Participants: Female patients taking ERT who picked up prescriptions from an U.S. national pharmacy chain. Design: A blinded sample of female patients (n=12,000) was followed and the refill data was analyzed. A baseline analysis of the data showed that 50% of patients dropped out of therapy by month 9. An adherence program consisting of eight different protocols was developed and implemented. Patients were randomly assigned to a program cohort or a control cohort. Over 27% of patients (n=3262) received a survey containing questions developed to help with the design of the program. Thirty percent of the surveys were completed and returned. The response indicated that the majority of women who were prescribed ERT for osteoporosis were over 55. So we assumed that women under 55 took ERT for menopausal symptoms and women over 55 took ERT for osteoporosis. Interventions were in the form of letters that went out right after the start of the prescription and prior to each refill due date, depending on the protocol. Patients were followed in each program cohort as well as the control cohort. All groups were also followed to see if they completed the initial prescription and refills prescribed and obtained a second new prescription when the initial prescription was completed. **Results:** All program groups performed superior to the control groups. On average, over an 11- month period, the menopause group received 3.54 interventions and the osteoporosis group received 4.70 interventions. Among the menopause patients, those who received fewer interventions, showed the best improvement in adherence. Among the osteoporosis patients, those who received more interventions, showed the best improvement in adherence. The highest impact was seen among the osteoporosis patients (25.68 extra tablets compared to control over an 11-month period). On average, 12% of the program patients completed their first prescription and obtained a second prescription compared to 2.5% of the control group ($X^2=120.94$, $df=1$, $P<.001$). **Conclusions:** These results signify the importance of treatment interventions for women who receive ERT. This study also showed that ongoing educational programs can affect patient behavior and make a positive impact on medication adherence. ERT can only be effective if patients adhere to their prescribed regimen. Through educational interventions and targeted communications, health care providers can educate patients on a larger scale, increase long-term medication adherence and improve therapeutic outcomes.

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