Title: Low-Dose Aspirin Use and Preeclampsia Prevention: A Quality Improvement Project

Background: Preeclampsia affects 2-8% of pregnancies and is the second most common cause of transfer from the home or birth center setting into the hospital setting. Low-dose aspirin therapy for high-risk women has reduced development of preeclampsia by 24% with no side effects to mother or baby. Purpose: The purpose of this quality improvement project was to evaluate midwifery adherence to guidelines identifying women at risk for developing preeclampsia and women's acceptance of the therapy. Methodology: Three midwives and three nurses working in a birth center volunteered to participate in the project whereby over a five-week period all women presenting for care between the gestational ages of 12 to 28 weeks were screened using the Clinical Risk Assessment for Preeclampsia. Low-dose aspirin therapy was initiated on those who were high risk. Patient chart-audits revealed providers' guideline adherence scores, number of high-risk women identified, and number of women initiating low-dose aspirin therapy. Kruskal-Wallis test evaluated providers' adherence to guidelines, and the Chi-square Test for Independence evaluated the relationship between risk diagnosis and initiation of aspirin therapy. Population: The target population was birth-center midwives and nurses, and the indirect population of interest was pregnant patients of the birth center. Results: Guideline adherence was consistent as evidenced by no statistically significant difference of guideline adherence scores when compared by weeks (x^2 [4, n=52] = 5.90, p = 0.21). A statistically significant relationship was shown between the diagnosis of high-risk for preeclampsia and the initiation of aspirin therapy (x^2 [1, n = 50] = 23.82, p = .00, phi = .76). 13 of 52 patients were diagnosed as high-risk, and 7 of the 13 initiated aspirin therapy. Conclusion: It is important for birth center midwives to implement guidelines to identify at-risk patients; however, women choosing a birth center setting may not choose to take preventive medication. Future research regarding life-style changes and non-pharmacological therapy to reduce risk of preeclampsia is necessary.