SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

Prenatal Folic Acid Use and the Incidence of Neural Tube Defects in Developing Fetus

SCHOOL OF PHARMACY

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BACKGROUND

- Neural tube defect occurs when the neural tube does not form and completely closes in embryonic development
- NTDs can include anencephaly, spina bifida, encephalocele, and more
- About 3,000 cases annually in the US
- 400-800 mcg daily of folic acid can prevent NTDs

OBJECTIVES

- Primary Objective: increase the number of patients taking folic acid and capable of pregnancy at SIHF Alton Clinic
- Secondary objectives: decrease
 the prevalence of NTDs, create
 quality improvement metrics and screening
 tools for a standard intake form

METHODS

- Retrospective chart review within AthenaOne database
- Inclusion Criteria:
- Patients assigned female at birth between the ages of 12 and 45 years old.
- Patients seen by providers at the SIHF Alton Clinic.

METHODS

- Exclusion Criteria:
- Patients assigned female at birth with no documented menstruation
- Patients with documented hysterectomy
- Patients at SIHF Alton Clinic seen by nonresidency providers
- Patients pregnant at the beginning of the study or during the duration of the study
- Patients visiting the clinic outside
 the dates of July 7,2023 and March 18,
 2024
- Intervention: patient education and informative handout
- Calculating baseline % and postintervention % of patients on folic acid supplementation

Baseline Post-Intervention 95 • % Receiving Folic Acid • % Not Receiving Folic Acid • % Not Receiving Folic Acid

- 2/217 patients started prenatal vitamin post-intervention
- 8/217 (3.69%) patients were taking medications with neural tube defect risks
- 34/251 (13.5%) patients excluded due to hysterectomy, tubal ligation and male assigned birth

CONCLUSION

- Proper education helped patients get onboard to start or consider starting a prenatal vitamin.
- Continuation of this project is warranted to discover the true impact of implementing prenatal vitamins in child-bearing age women.

References

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