Vitamin D and Preeclampsia
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PATIENT CARE ISSUE
Background & Significance
- Preeclampsia is a pregnancy-specific syndrome that is characterized by high blood pressure and protein in the urine. It is normally diagnosed after the 20th week of pregnancy.
- Preeclampsia accounts for 25% of all maternal death and perinatal morbidity and mortality, and affects 2-8% of all pregnancies.
- Research suggests that Vitamin D deficiency is a risk factor for the occurrence of preeclampsia.
- Vitamin D is important during pregnancy, as low levels of Vitamin D may contribute to problems such as low birth weight, small for gestational age infants, and increased risk of maternal comorbidities such as development of preeclampsia.

EVIDENCE-BASED PRACTICE QUESTION
Question: In pregnant women at risk for preeclampsia, how does Vitamin D supplementation compared to no Vitamin D supplementation help in preventing preeclampsia?
Population: Pregnant Women at Risk for Preeclampsia
Intervention: Vitamin D Supplementation
Comparison: No Vitamin D Supplementation
Outcome: Prevention of Preeclampsia

RESULTS
- Number of articles found before inclusion/exclusion criteria: 107
- Number of articles used: 10

JHNEBP: Levels of Evidence
- Level 1 (1,3,4)
- Level 2 (2,5,6,7)
- Level 3 (8,9,10)

SYNTHESIS OF EVIDENCE

REFERENCEs

METHODS
- Model
  - The Johns Hopkins Nursing Evidence-Based Practice model was used to guide this research.
- Search Strategy
  - Inclusion Criteria: Women at risk for preeclampsia, article discusses Vitamin D supplementation's effect on preeclampsia.
  - Exclusion Criteria: Older than 5 years (2013-2018), not full text.
  - Databases: PubMed, Cochrane Collection, CINAHL Plus with Full Text, OneSearch.
  - Key Words: Preeclampsia, preeclampsia in pregnancy, Vitamin D, vitamin supplementation, Vitamin D supplementation

EVIDENCE-BASED PRACTICE RECOMMENDATIONS
- Consider pilot of change or further investigation to determine the effectiveness of Vitamin D supplementation in prevention of preeclampsia.

LIMITATIONS
- Results may not be generalizable to all populations
- More randomized control trials are needed
- Larger sample sizes are required