

Improvement of Preeclampsia Outcomes

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Introduction

PICOT

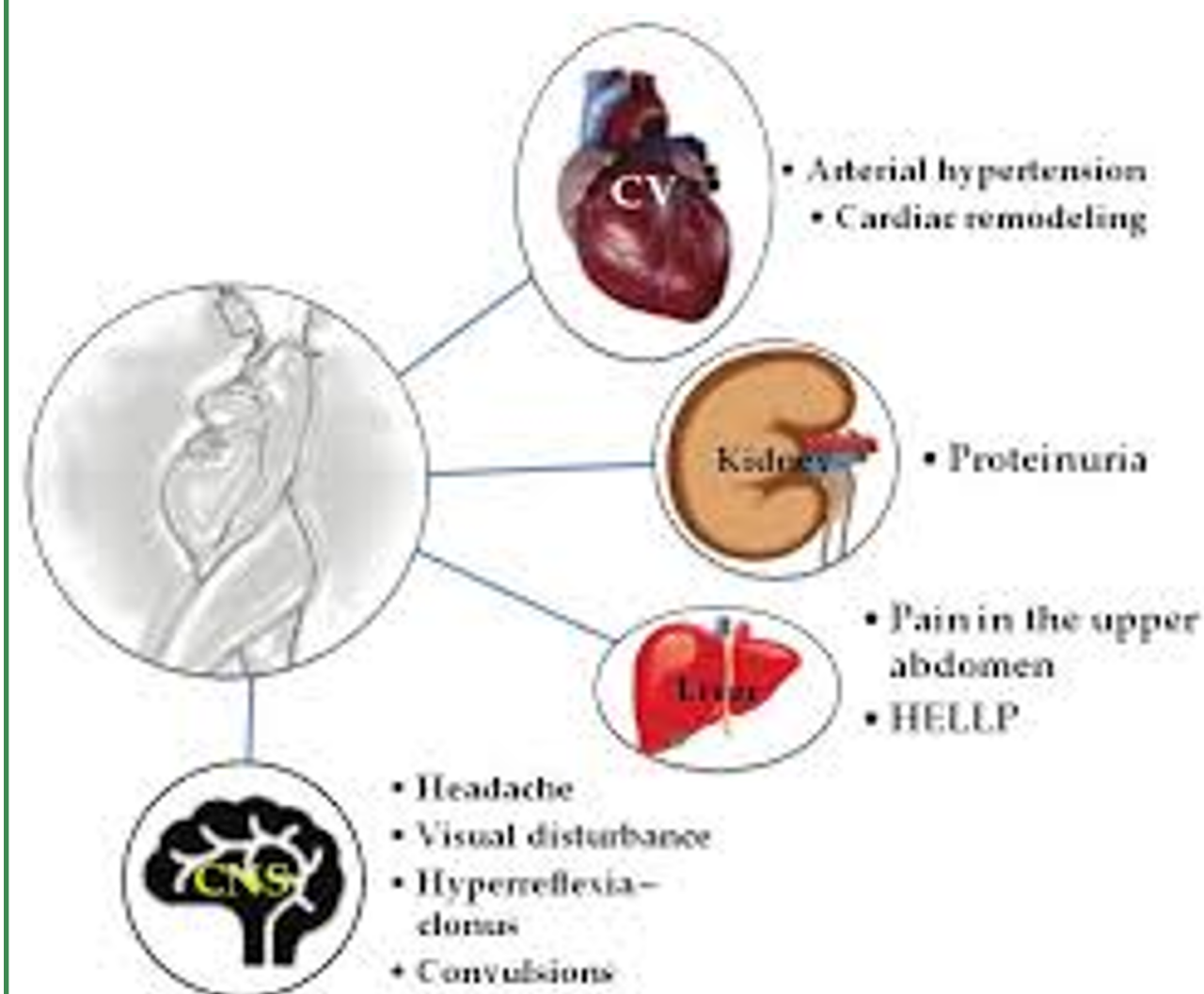
- In nurses who take care of preeclampsia women how does education on preeclampsia management and care compare with no supplemental education on preeclampsia management and care affect nurses knowledge on the management and care of preeclampsia

Literature Search

Databases: CINAHL, Scopus, PubMed

Search parameters: peer reviewed articles, published within the past 5 years

Keywords: preeclampsia, education, magnesium sulfate, early education, prenatal care, aspirin, labetalol, seizure precautions, gestational hypertension, diagnosis, prevention, screening, nifedipine,



Current Evidence

We included 16 Articles

- The frequency of Antenatal Care effects maternal and fetal outcomes
- Accurate BP measurement is essential to correct and timely care
- A daily aspirin prevents preeclampsia
- Proper 24hr Urine Collection is essential to diagnose preeclampsia
- Magnesium Sulfate first line drug
- Oral Nifedipine recommended over IV Labetalol
- Oral Diltiazem recommended over oral Nifedipine
- Nursing staff and patients show a significant lack of knowledge and education regarding preeclampsia signs and symptoms as well as management.

Outcomes

- When comparing the data between our pre and post assessments, there was a significant increase in knowledge after reviewing our educational PowerPoint. Nurses had become more educated on care and management of preeclampsia, which will in turn will improve preeclamptic patient outcomes.

Lessons Learned:

- We could have presented to antepartum and L&D floors within the same hospital to determine similarities and differences between knowledge
- Further studies could be done on preeclamptic patient outcomes after nurses have been educated consistently.
- Increasing the amount of education given on preeclampsia to obstetric nurses
- study differences on types of educational material given among hospitals for most effective outcomes

Education Plan

Place: UCMC & Good Samaritan Hospital

Presented to: Nursing Staff on Labor and Delivery/Antepartum units

Purpose: To educate nurses on preeclampsia patient education, management, treatment, and inpatient nursing care.

Objectives:

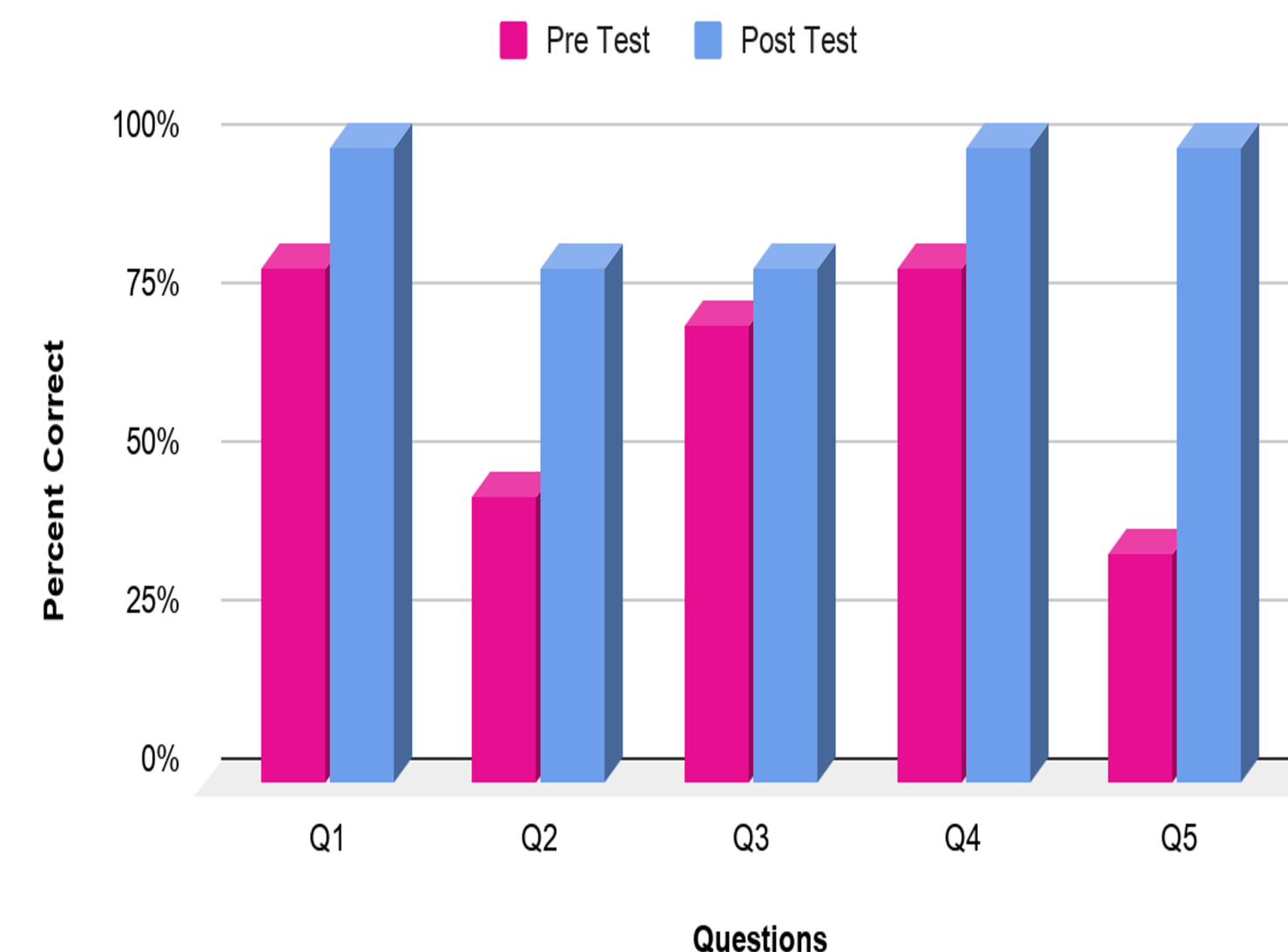
- Nurses to feel confident in educating their patient on Preeclampsia management and care
- Be able to understand how to take an accurate blood pressure reading
- Be able to understand how to collect a 24-hour urine test properly
- Be able to understand and discuss the various types of medications used for preeclamptic patients

Method: Emailed educational PowerPoint presentation video to nurses to watch. Supplied links to pre and post test to assess knowledge known and gained

Pre and Post Test Questions

1. What is the purpose of using Magnesium Sulfate in preeclamptic women?
2. When measuring blood pressure, if both arms are consistently reporting different pressures (<10 mmHG) what should you do?
3. What effect does education programs on preeclampsia have for preeclamptic patients? (SATA)
4. When should at risk preeclampsia pregnant women begin using aspirin as a preventative measure?
5. What are some of the serious side effects of Nifedipine? (SATA)

Improvement in Correct Responses Between Pre and Post Test



References

- Alnuaimi, K., Abuidhail, J., & Abuzaid, H. (2020, September 22). The effects of an educational programme about preeclampsia on women's awareness: A randomised control trial.
- Doğan, S., Sel, G., İlker Arkan, n., İbrahim Harma, M., Harma, M., Barut, A., & Özmen, I. (2019, June 10). Accuracy of the 24-h urine protein excretion value in patients with preeclampsia: correlation with instant and 24-h urine protein/creatinine and albumin/creatinine ratios. *Journal of Obstetrics and Gynecology*, 1074-1080. doi:10.1080/01443615.2019.1586854
- El-Sayed Azzaz, A. S., Martinez-Maestre, M. A., & Torrejon-Cardoso, R. (2016). Antenatal care visits during pregnancy and their effect on maternal and fetal outcomes in pre-eclamptic patients. *Japan Society of Obstetrics and Gynecology*, 42(9), 1102-1110. doi:10.1111/jog.13031
- Hwang, K. O., Aigbe, A., Ju, H., Jackson, V. C., & Sedlock, E. W. (2018). Barriers to Accurate Blood Pressure Measurement in the Medical Office. *Journal of Primary care and Community Health*, 9(1-7). doi:10.1177/215013271
- Wright, D., Poon, L. C., Rolnik, D. L., Syngelaki, A., Delgado, J. L., Vojtassakova, D., ... Nicolaides, K. H. (2017). Aspirin for evidence-based preeclampsia prevention trial: Influence of compliance on beneficial effect of aspirin in prevention of preterm preeclampsia. *American Journal of Obstetrics and Gynecology*, 217(6). https://doi.org/10.1016/j.ajog.2017.08.110
- Zulfeen, M., Tatapudi, R., & Sowjanya, R. (2019). IV labetalol and oral nifedipine in acute control of severe hypertension in pregnancy—A randomized controlled trial. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 236, 46-52. doi:10.1016/j.ejogrb.2019.01.022