Preventing Preeclampsia

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Preeclampsia (PE) is a large concern in maternal women; it is known to have a direct link to maternal complications and mortality. PE is a hypertensive disorder that occurs during pregnancy. It is known as a new onset of high blood pressure with proteinuria that occurs during pregnancy (AHA, n.d). Symptoms of PE usually occur around 20 weeks' gestation. (Alipova et al., 2025). Along with just having high blood pressure, PE is also known for having some effects on the organs. The types of organs affected by PE are the liver, kidneys, and brain. Seeing all the effects PE has on the body; it is important nurses are doing their best to educate maternal mothers on everything they need to know to prevent PE. Maternity nurses in the outpatient setting play an important role of preventing PE by educating the importance of low-dose aspirin prophylaxis for high-risk women, allowing parents to understand early warning signs to report and ensuring consistent blood pressure monitoring to reduce maternal complications.

Prevention is very crucial for nurses and providers to think about with PE because, “There are around 46,000 maternal deaths due to pre-eclampsia per year and around 500,000 fetal or newborn deaths” (World Health Organization, 2025). The first step in PE prevention is to figure out what type of women are at high risk for developing PE. The development of PE can occur due to a variety of factors. Some factors including environmental, genetic, and physiological influences (Alipova et al., 2025).

Lifestyle choices play a large role in the development of PE. A history of obesity or having an increased BMI are indicators that can lead to PE. It is shown that, “The role of obesity-related conditions in this development of PE is evident, as it is more common in women with metabolic disorders like polycystic ovary syndrome or insulin resistance (Alipova et al., 2025).

From that quote, understanding that monitoring weight and nutritional habits can be a benefit in the prevention of PE. All expecting mothers should be screened for diabetes as it is a large risk factor. There are several underlying health conditions that can increase your risk of developing PE, so being aware, early screening, and reporting any abnormalities in your health is important. (Alipova et al., 2025).

There are some other environmental factors that play a role in PE. Some examples would include being physically inactive, having chronic stress, along with having a history of smoking or alcohol intake (Alipova et al., 2025). A genetic component also plays a role in the development of PE; it has been shown that if your first-degree relative such as a mother or sister has a history of PE, you are more at risk of developing it during your pregnancy (Alipova et al., 2025). Making sure you discuss with your first-degree relatives about a history of pre-eclampsia is important to talk to your doctor about. As discussed, there are a lot of factors that play developing PE. Understanding the risk factors of PE helps maternal nurses develop prevention strategies that can be used in pregnancy.

One prevention strategy that maternal nurses can use to prevent PE is the use of regularly monitoring blood pressure for hypertension. It is important to know what your normal blood pressure runs because PE occurs when a maternal mother develops a new onset of hypertension after 20 weeks' gestation (CDC, n.d.). Blood pressure monitoring can play a significant role in diagnosing PE in maternal mothers.

It is important to know what a high blood pressure reading would be considered; this is a huge teaching point for maternity nurses to be explaining to their patients when educating them on how to take their blood pressure. High blood pressure would be anything over 140/90 mmHg.

To be considered PE, the blood pressure would have to be running normal, such as below 120/80 mmHg before 20 weeks' gestation and 140/90 mmHg or higher after 20 weeks' gestation. Someone with PE would also see protein in their urine along with the hypertension (CDC, n.d).

Maternal mothers should self-monitor their blood pressure on a regular basis and have a good understanding of their baseline pressure. Home blood pressure monitoring is a great method to include in expecting mothers' care as an extra precaution in early detection. It is important because the mother may be able to notice hypertension before a doctor may be able to notice it at her appointment. Understanding a new onset of hypertension is crucial in being able to start different precautionary measures such as low-dose aspirin earlier in your pregnancy to prevent long term effects (Albadrani et al., 2025).

When we measure our own blood pressure, it is important that nurses educate their patients on the proper way to obtain blood pressure. Some important factors that play into obtaining a blood pressure include understanding the proper technique, a blood pressure device that is allowed to be used among pregnant women and knowing what size cuff you should use all play a huge role in getting an accurate blood pressure. Blood pressure is measured using a sphygmomanometer (CDC, n.d.).

Within the past few years, a lot of providers have been using mobile heath apps that allow them to monitor and treat different medical issues without having to be in the office. One thing that the mobile health app allows providers to do is remote blood pressure monitoring (Rajkumar et al., 2025). This is interesting because what this remote app does is has an "Organized framework in which patients monitor and record their own BP using a validated machine. Clinicians review these blood pressure readings and adjust treatment or provide

participants with clear instructions for contacting care teams when blood pressure readings are out of prespecified targets." (Rajkumar et al., 2025).

This is amazing that providers can use technology to have early detection of PE to help prevent some of the long-term outcomes. (Rajkumar et al., 2025). When some expecting mothers to go to their doctors' appointments, their blood pressure naturally increases due to stress and anxiety. Being able to take blood pressure at home gives them a more accurate reading when they are in a non-stressful environment. This is important because if you have high blood pressure on two or more occasions, that is considered PE. (Rajkumar et al, 2025).

The maternal nursing role in blood pressure monitoring is just to educate this importance of what a high blood pressure reading includes, the proper way to apply a blood pressure monitoring advice, and just to be an advocate for the maternal mother and be there to listen and help with all her concerns about preeclampsia. Keeping maternal mothers informed helps them to be less stressed about the unknown and gives them time to take prevention measures in their benefit.

By knowing the risk factors of PE and why completing at home blood pressure monitoring is so important, providers can prescribe low-dose aspirin during pregnancy to help prevent or lessen the severity and effects of PE. It is shown that prevention for PE is started at least around 12 weeks' gestation and before 16 weeks' gestation (Komoroczy et al., 2025). This is important because symptoms of PE usually being around 20 weeks' gestation. In a journal article it states, "The International Federation of Gynecology and Obstetrics (FIGO) in 2020 also suggests aspirin prophylaxis commencing at 11–14 weeks plus 6 days of gestation at a dose of ~150 mg until 36 weeks of gestation, when delivery occurs, or when preeclampsia is diagnosed

(Komoroczy et al., 2025).

Understanding when to begin aspirin therapy is very important. It has been studied and found that beginning low dose aspirin therapy of 81mg when the patient has one or more of the following risk factors: some including having a history of preeclampsia, having a history of hypertension, or even a combination of multiple other risk factors such as diabetes or obesity (American College of Obstetrician and Gynecologists, n.d.). These can all worsen the effects of PE. Aspirin taken in low doses has been shown to, "dramatically lower the chance of developing preterm and term preeclampsia" (Wang & Chang, 2025).

Evidence-based practice for low dose aspirin shows that OBGYNs should implement thorough testing to determine how high risk a patient is at for PE. For most patients who do fall into the category of being moderate to high risk would be a candidate for low dose aspirin prophylaxis (American College of Obstetrician and Gynecologists, n.d.). In the outpatient maternity nursing setting, it would be important to provide education about risk factors that come with PE and offer the patient the choice to start low dose aspirin therapy as it can be very beneficial in prevention. Most patients might not even know what PE is or what low dose aspirin therapy is and how it can help with this condition. Making sure nurses are having proper training and ensuring they know what to look for when educating patients about this condition is so crucial. It is also important that nurses are being advocates for the patient while teaching them everything they need to know about PE.

Maternal nurses in the outpatient setting play an important role in preventing PE. It is very important that nurses are educating maternal mothers understand the environmental, genetic, and physiological influences that increase the risk of PE. As well as nurses are to be

providing information and education about how to properly complete self-blood pressure monitoring at home, as well as using mobile heath apps, so providers and patients can easily track their blood pressure. It is also very important to educate the importance of low dose aspirin therapy in high-risk maternal women. Nurses are the patients' advocates and should always be their to listen to their patients concerns and answer any questions they have about PE.

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