Nursing Care and Use of the Jada Device During Postpartum Hemorrhage

Noelle Benson

Margaret H. Rollins School of Nursing

N201: Nursing Care of Special Populations

Dr. D. Blankenship

October 10, 2025

Nursing Care and Use of the Jada Device During Postpartum Hemorrhage

Postpartum hemorrhage (PPH) is defined medically as blood loss greater than or equal to 1000 mL within a 24-hour period after delivery of a baby (Wormer, 2024). While we may think it's rare, PPH is a significant cause of maternal morbidity and mortality and has been for many years (Clark & MacDougall, 2022). A very common cause of PPH is uterine atony, which is when the uterus fails to properly contract and clamp down, leading to excessive bleeding. In 2020, the JADA device came on the market as a device that assists the uterus to contract, therefore stopping excessive hemorrhaging (D'Alton et al., 2021). Early nursing postpartum assessment for PPH & uterine atony drives the prompt use of the Jada system, significantly decreasing morbidity and mortality.

PPH is traditionally defined as estimated blood loss (EBL) of greater than 500 mL for vaginal deliveries or EBL greater than 100 mL for Cesarean deliveries (Wormer, 2024). The American College of Obstetrics and Gynecology does not differentiate between vaginal or cesarean delivery. They define PPH as EBL equal to or greater than 1000 mL of blood loss within a 24-hour period, along with symptoms of hypovolemia (Shields et al., 2024). PPH is the most common cause for maternal obstetric death worldwide (Clark & MacDougall, 2022). Current statistics show that obstetric hemorrhage accounts for 25% of maternal deaths that are related to an obstetrical cause (Clark & MacDougall, 2022). The United States' current rate of death from PPH is 11%, which is one of the highest rates in the world (Shields et al., 2024). Unfortunately, that number continues to rise. European countries are even higher at 13% (Shields et al., 2024).

There are four main causes of PPH. The most common cause of PPH is uterine atony, which falls under the category of tone. After delivery, the uterus must contract in order to close

the placenta's blood vessels to stop the bleeding. Uterine atony is when this does not happen, which leads to continued uterine bleeding. While there are many different reasons for uterine atony, a few include having a full bladder, uterine overdistention, and prolonged labor. Uterine atony is responsible for 70% to 80% of all cases of PPH (Wormer, 2024). Another cause of PPH is related to tissue left in the uterus, most commonly pieces of the placenta left in the uterus. With tissue left in the uterus, it cannot contract and clamp down as it needs to in order to stop uterine bleeding. Trauma is another cause of PPH. A laceration, incision, episiotomy, or any other instrument assistance can cause trauma to the uterus and cause it not to be able to perform the necessary contractions to stop the bleeding. The last cause is thrombin, pre-eclampsia, HELLP syndrome, placental abruption, or other coagulopathies that cause issues with how the blood clots. In most cases, the blood does not clot enough, and bleeding continues.

The Jada device has revolutionized the care of PPH for patients. It is completely different from any other treatments used before it began to be used in 2020. The Jada device has the ability to encourage the uterus to contract, therefore controlling any abnormal postpartum uterine bleeding (D'Alton et al., 2021). The Jada device is a soft, silicone device that is shaped like a loop. Placed by a trained healthcare provider, the device has an inflatable balloon that rests against the cervix. The device is then connected to suction. The piece of the device that has been placed within the uterus has holes in it. Using 80 (± 10) mm Hg of suction, the device is able to assist the uterus in contracting (D'Alton et al., 2021). Organon (2025) states the Jada device is left in the patient's uterus with the vacuum for at least one hour. Once the hour is complete and the bleeding is under control, the device is then left in the uterus without the vacuum for 30 minutes. On average, the Jada device needs to stay in place in the patient's uterus for 3.2 hours of total time.

The Jada device currently has an effective rate of 94% (D'Alton et al., 2020). Compared to the Jada, the Bakri balloon is a uterine balloon tamponade device that works differently. The Bakri balloon is a catheter-like a Foley but has a large balloon on the end that can be inflated with saline. This device is inserted into the uterus, and then the balloon is inflated. It puts pressure on the uterus to stop the bleeding. It has an 85% effectiveness in stopping uterine bleeding (Xiao et al., 2023). With up to 1500 mL of saline in the balloon, it is often kept in place for up to 24 hours (Xiao et al., 2023). It uses pressure to stop the bleeding, while the Jada device uses suction to contract the uterus to stop the bleeding. The Jada device is also more cost effective (Bridges et al., 2023). Many hospitals are now using the Jada device instead of the Bakri balloon due to its higher rate of effectiveness with stopping PPH as well as a shorter period of time needed to use the device and a lower cost (Bridges et al., 2023).

Nurses play a crucial role in diagnosing PPH. By understanding the risk factors for PPH and knowing the signs and symptoms, they can help with earlier diagnosis. As mentioned before, uterine atony is the greatest cause of PPH, about 70% to 80% (Wormer, 2024). Nurses are consistently monitoring a patient's uterine tone, location, level, and the lochia. A normal postpartum uterus assessment would see a firm uterus, midline. The level of the uterus should correlate to the amount of time since the patient has delivered. Immediately in the postpartum period the lochia should be a scant to moderate amount of lochia rubra. In abnormal postpartum scenarios, the uterus is boggy, it can be deviated to one side, or it is incongruent with the amount of time since delivery. For a boggy uterus, the nurse would perform a fundal massage until the uterus is firm. If the uterus is deviated off to the right side, the nurse would assist the patient in emptying their bladder by either helping them to the bathroom or using a catheter. If these nursing practices fail, the nurse would suspect a PPH and immediately notify the healthcare

provider. With early nursing intervention, the PPH is either resolved or the healthcare provider is notified and can implement the Jada device or another appropriate treatment to stop the PPH. Earlier detection and treatment lead to better outcomes. By frequent nursing assessments and necessary interventions, the patient has fewer negative outcomes and tends to recover faster. Nurses assess the uterus as well as the lochia every fifteen minutes during the first two hours postpartum and then every four hours for the next twenty-four hours postpartum. This is better for the new mother and her baby. Nurses are with their patients throughout the delivery and are usually more able to catch any abnormalities during delivery. This attention leads to fewer morbidities and mortalities. While the Jada device is placed by a provider, the nurse is often the one who catches the early signs of PPH and can advocate for additional treatments such as the Jada device.

The Jada device has had a positive effect on patient care. Most importantly, the current evidence has shown that the Jada device has decreased the maternal morbidity and mortality rates (Goffman et al., 2023). Also important, the use of Jada device has decreased the need for blood transfusions because it is so effective at controlling and stopping PPH. While decreasing the percentages of mothers needing transfusions, Jada devices have also dropped the numbers of mothers going into hemorrhagic shock and needing to be monitored in an intensive care setting (Goffman et al., 2023). All of these reasons lead to less time spent inpatient, which is ultimately better for the patient and her newborn. The Jada device also decreases the risk of displacement and tears of the patient's cervix and/or vagina. It decreases the number of uterine perforations and infections as well as the need for a hysterectomy (Overton et al., 2024). This means that the patient likely heals faster and is able to regain normal daily life faster. The Real-World Utilization of an Intrauterine, Vacuum-Induced, Hemorrhage-Control Device (RUBY) study

collected data from several hospitals using the Jada device. Goffman et al (2023) conducted a study that found that first there were possibly only 1.1% of adverse events. So, out of 800 patients in the study, only 3 had issues after using the device. Of the three serious adverse events, one was hemorrhagic shock and hypertension, and the other two were endometritis. This study showed a lowering of serious side effects of PPH by using the Jada device. In the RUBY study the treatment success rate for vaginal births using the device was 92.5%. For Cesarean deliveries the success rate was 83.7%Also in the study, 73.8% of all vaginal deliveries using the Jada device had bleeding under definitive control within 5 minutes. For Cesarean, that that rate was 62.2%. Comparatively, the Bakri success rate for vaginal deliveries was at 60%, and for Cesarean, that number was only 40% (Xiao et al., 2023). The mortality rate for the Bakri balloon was 230 patients out of 75,000 patients compared to only 87 deaths per 75,000 using the Jada device (Bridges et al., 2023). As you can see, there is a significant improvement in success rate using the Jada device. Due to the relatively high success rate and how quickly the Jada stops the intrauterine bleeding compared to the Bakri balloon, a patient is much more likely to be discharged sooner. Throughout multiple studies, it is shown that the Jada has better outcomes with maternal mortality and morbidity.

PPH is still a significant healthcare issue within the United States today. However, with the development of the Jada device in 2020, we see promising declines in maternal morbidity and mortality rates. The device is the only device currently on the market that uses a vacuum to help contract the uterus down. Recent studies show that this device has been slightly more effective in controlling PPH than other devices or medications as well as controlling PPH much faster (D'Alton et al., 2021). Early recognition and interventions through best practices in nursing care leads to a more rapid diagnosis of PPH and treatment. By treating PPH more

quickly, the outcomes are better for the patient. The Jada device is more effective in controlling PPH and also does it in a much more timely manner. This is better for the patient and the hospital. The Jada device has revolutionized the treatment of PPH and continues to provide safer and more effective treatment for postpartum mothers.

References

Bridges, A., Doshi, U., & Caughey, A. B. (2023). Bakri balloon vs. Jada device for treatment of postpartum hemorrhage: A cost-effective analysis. *American Journal of Obstetrics and Gynecology*, *228*(1). https://doi.org/10.1016/j.ajog.2022.11.1018

Clark, M., & MacDougall, D. (2022). Vacuum-induced uterine tamponade for postpartum hemorrhage. *Canadian Journal of Health Technologies*, *2*(3). https://doi.org/10.51731/cjht.2022.282

Organon. (2025, August 11). *Clinical evidence*. https://organonpro.com/en-us/product/the-jada-system/clinical-evidence/

D'Alton, M. E., Rood, K. M., Smid, M. C., Simian, H. N., Skupski, D. W., Subramaniam, A., Gibson, K. S., Rosen, T., Clark, S. M., Dudley, D., Iqbal, S. N., Paglia, M. J., Dozy, C. M., Chien, E. K., Gibbins, K. J., Wine, K. D., Bentum, N. A., Kominiarek, M. A., Tuuli, M. G., & Goffman, D. (2020). Intrauterine vacuum-induced hemorrhage-control device for rapid treatment of postpartum hemorrhage. *Obstetrics & Gynecology*, *136*(5), 882–891. https://doi.org/10.1097/aog.0000000000004138

D'Alton, M., Rood, K., Simhan, H., & Goffman, D. (2021). Profile of the JADA® system: The vacuum-induced hemorrhage control device for treating abnormal postpartum uterine bleeding and postpartum hemorrhage. *Expert Review of Medical Devices*, *18*(9), 849–853. https://doi.org/10.1080/17434440.2021.1962288

Goffman, D., Rood, K. M., Bianco, A., Biggio, J. R., Dietz, P., Drake, K., Heilman, E., Hopkins, M., De Four Jones, M., Katz, T., Martin, C., Prasad, M., Smid, M. C., Wine, K. D., Ryan, R., Yong, C., Carney, P. I., & Simhan, H. N. (2023). Real-world utilization of an

intrauterine, vacuum-induced, hemorrhage-control device. *Obstetrics & Gynecology*, *142*(5), 1006–1016. https://doi.org/10.1097/aog.0000000000005366

Overton, E., D'Alton, M., & Goffman, D. (2024). Intrauterine devices in the management of postpartum hemorrhage. *American Journal of Obstetrics and Gynecology*, *230*(3). https://doi.org/10.1016/j.ajog.2023.08.015

Shields, L., Goffman, D., & Caughey, A. (2024). Practice bulletin no. 183: Postpartum hemorrhage. *Obstetrics & Gynecology*, *130*(4). https://doi.org/10.1097/aog.0000000000002351

Wormer, K. C. (2024, July 19). *Postpartum hemorrhage*. StatPearls. https://www.ncbi.nlm.nih.gov/books/NBK499988/

Xiao, C., Wang, Y., Zhang, N., & Sun, G. (2023). Bakri balloon for treatment of postpartum hemorrhage: A real-world 2016-2020 study in 279 women from a single center. *Medical Science Monitor*, *29*. https://doi.org/10.12659/msm.938823