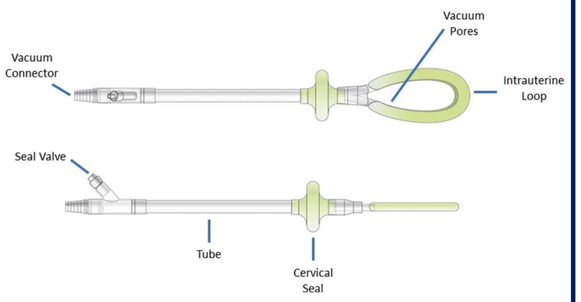
The Effect of the Jada Device on Postpartum Hemorrhage in the First 24 Hours

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NU445 – Evidence Based Practice for the Professional Nurse – Dr. Sarah Bedi

What Is the problem?

Postpartum hemorrhage (PPH) is the leading cause of maternal mortality worldwide, with over 70,000 deaths annually. Approximately 14 million women experience a PPH per year. Without intervention, these women can die in minutes. In the past, controlling a PPH would have taken healthcare staff *hours* utilizing traditional uterotonic medications and balloon-tamponade devices. Some women lost their entire uterus and were left with lifelong reproductive disabilities. Now, we can solve this problem in as little as **three minutes** with the Jada device.



PICOT Question

In women with PPH, does the use of the Jada device compared to the usual management of PPH lead to better bleeding control and reduced adverse outcomes in the initial 24 hours postpartum?

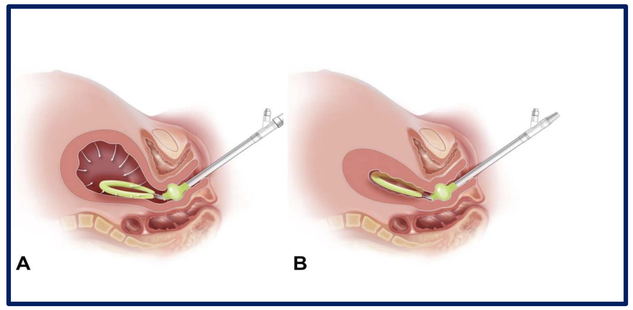


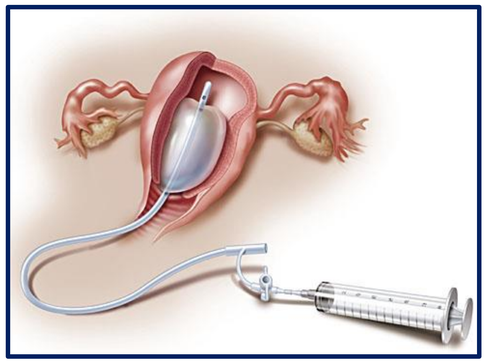
What is a PPH & Why Does It Happen?

Postpartum hemorrhage is an extreme loss of blood after birth. 80% of the time, this is due to **uterine atony**. After birth, the uterus becomes fatigued and fails to contract. If the uterus continues to be **atonic**, a hemorrhage occurs.

How Does the Jada Device Work Compared to the Usual Management of PPH?

The Jada system was created in 2011 and FDA approved in 2020. It is an **intrauterine vacuum-tamponade device.** It is inserted into the hemorrhaging uterus and hooked up to low-level suction. This mechanically moves the uterus into a contracted position and stops the hemorrhage. An intrauterine **balloon-tamponade** device is what has been used in the past. The balloon inflates and puts outward pressure on the walls of the collapsed uterus. This simply **masks** the cause of the hemorrhage, while the Jada system immediately treats the **root cause**. Not to mention, the balloon device needs more time than Jada to fully inflate and be correctly placed inside the uterus, and there is a major risk of **uterine rupture** from overinflation. Jada also allows for continuous monitoring of blood loss. That blood can then be filtered and used for resuscitation, if needed. The other option is surgical intervention, which is risky and likely not available in underdeveloped countries/rural areas.

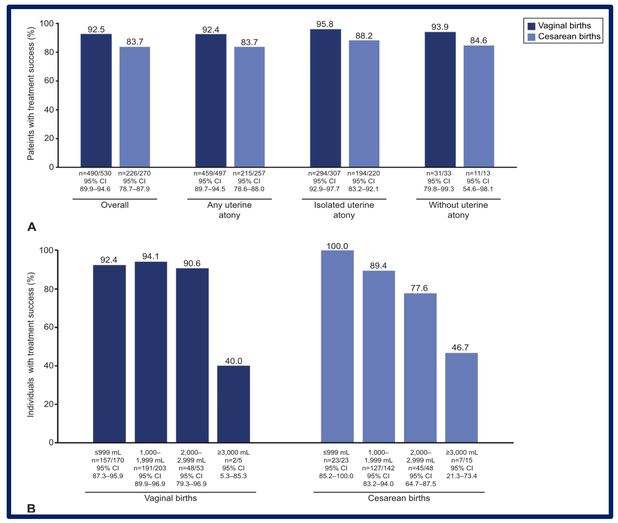




Summary of Literature

Real-World Utilization

In a study of 800 individuals, with Jada, bleeding was controlled successfully in 92.5% of patients who delivered vaginally and in 83.7% of patients who had a C-section. In cases of PPH due to uterine atony only, the success rate was even higher, at 95.8% of vaginal births and 88.2% of Cesarean births. **No uterine perforations or deaths occurred for any patients who were treated with the Jada device.** There were recognized delays in treatment, however, with an average 31-minute time delay from placental delivery to device use in vaginal deliveries, and 108 average minutes for Cesarean section. The success rate potentially could have been higher if the device had been applied more hastily.



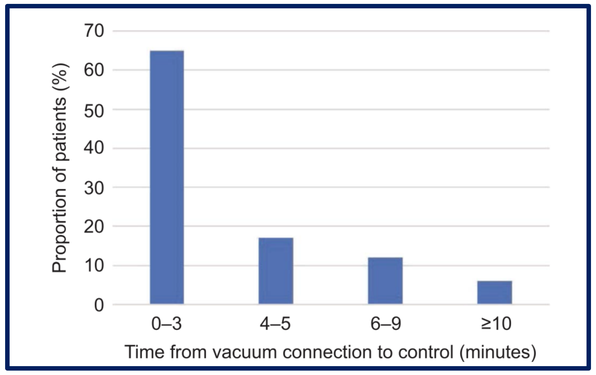
Clinical Outcomes & Cost-Effective Analysis

Of 75,000 mothers who were treated with the Jada device, compared to the Bakri balloon (usual management), 4,836 needed fewer blood products, and 7,388 required fewer additional medical interventions. There were 5,176 fewer ICU admissions, 143 fewer deaths, and Jada was projected to save $145 million dollars annually.

Summary of Literature (Continued)

Fast & Easy to Use

In a study of 106 mothers experiencing a PPH, The Jada system was 94% successful. There was complete bleeding control in **a median of three minutes after application** of the device. 98% of users said the vacuum device was easy to use and 97% of users would recommend it to others.



Conclusions, Recommendations, & Future Study

The Jada device compared to the Bakri balloon was both more cost effective and had better maternal outcomes. Jada was both easy to use and effective. There are recommendations for continued study - including more control groups, preterm births, severe blood loss, mothers who receive zero analgesia, and qualitative studies on patient and family satisfaction.

Jada **will** reduce maternal morbidity and mortality, especially in areas with limited resources. Right now, the Jada device is in over 2,000 hospitals nationwide. However, there are over 6,000 hospitals in America, not to mention the rest of the world, where the risk for PPH skyrockets in underdeveloped countries. This device **must** be put in every hospital, ambulance, and midwifery clinic in the world. **Anywhere a birth could occur, the Jada device must be there too. Let us forge a path to a safer future: one mother, one baby, and one life-saving device at a time.**

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