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3 **Novel intrauterine vacuum induced hemorrhage control device; a**
4 **favorable alternative treatment of postpartum hemorrhage**

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10 Maternal mortality is a serious health concern, with casualties amounting to 295,000 in
11 2017.[1] As of present, about 25% of all maternal deaths fall under a condition known
12 as postpartum haemorrhage (PPH), which is defined as abnormal bleeding of more than
13 500 – ml post child birth; 80% of all PPH cases are attributed to an atonic uterus.
14 Consequently, a stepwise progression is observed to achieve haemostasis, starting from
15 compression therapy to uterotonics like oxytocin followed by uterine balloon
16 tamponade and even surgical intervention as the last line of treatment.[2]

17 In their study, Dalton et al. introduce The Jada System, a novel intrauterine vacuum
18 induced haemorrhage control device and evaluate its safety and effectiveness. [3] This
19 novel innovation uses low- level intrauterine vacuum to assist physiological forces,
20 collapse the uterine cavity and occlude blood vessels to control excessive bleeding.
21 Moreover, the study showcased successful definitive treatment in 94% of the patients
22 within an average of 3 minutes, minimal low-grade adversities, 98% investigators
23 deeming it easy to use and majority recommending it for future treatment.[3]

24 The Jada System's rapid and early use renders it an exceptional treatment to PPH in
25 comparison with alternatives like balloon tamponade that can only be used after a
26 significant blood loss. Furthermore, with a success rate of 87%, the balloon tamponade
27 can take up to 24 hours to control bleeding and carries numerous risks like rupture of
28 the overfilled balloon, infections, cervical tears and vaginal lacerations. [4]

29 While tackling maternal mortality with the help of The Jada System, it is imperative to
30 recognize that 94% of all maternal deaths occur in low and lower middle-income
31 countries, therefore coherent and competent approaches to maternal health care must
32 be introduced to developing countries around the world.[1] Pakistan is one such low-
33 middle income country that reported a Maternal Mortality Rate (MMR) of 140 per
34 100000 deaths in 2017.[1] Additionally, in a 2002 study, Jafarey outlined lack of
35 management, scarcity of medications, services, skills and blood banks to accommodate
36 excessive blood loss as the major causes of continued maternal deaths due to PPH
37 (52.9%) in the country.[5]

38 Considering The Jada System's high success rate in managing PPH, low - middle income
39 countries like Pakistan can invest in the local production of this device in a cost- efficient
40 manner. Such an incentive can prove to be a feasible and swift solution to obstetric
41 emergencies in the region.

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