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# Impact of Patient Safety Bundle for Management of Morbidly Adherent Placenta on Estimated Blood Loss

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## **Impact of patient safety bundle for management of morbidly adherent placenta on estimated blood loss**

**Introduction:** Establishment of centers of excellence for care of patients with morbidly adherent placentas (MAP) has been described to improve patient outcomes. We compared maternal estimated blood loss (EBL) for patients with MAP delivered before and after the implementation of a protocol for management of MAP.

**Objective:** To assess the impact of a new protocol for management of MAP.

**Methods:** This is a retrospective cohort of patients at TJUH who had a MAP between 2007 and 2018. In 2015 our center developed a protocol as a patient safety bundle for the management of MAP. Pre-protocol and post-protocol groups were compared. Demographic and operative data were collected. Maternal outcomes were collected and compared using Chi-squared and Fisher-exact test. Continuous variables were compared using Mann-Whitney test. The primary outcome was EBL during cesarean hysterectomy.

**Results:** Forty-one of MAP were analyzed. Cesarean hysterectomy was performed for all patients. There were significantly more suspected MAP cases in the post-protocol period (31.8% vs 89.5%,  $p < 0.0001$ ). The post-protocol group was more likely to have a placenta previa, and receive betamethasone prior to delivery. Practice patterns that changed with the bundle included Cell Saver<sup>®</sup>, vertical skin incision, fundal hysterotomy, and co-management with gynecologic oncology. EBL was lower in the post-protocol group (pre-protocol: 2600 [1262, 4500] vs post-protocol: 1200 [900, 2250],  $p = 0.04$ ). Massive transfusion was not necessary post-protocol.

**Discussion:** Implementation of a patient safety bundle for MAP demonstrated a lower EBL and more consistent management practices, improving patient safety.