Table D-31. Evidence table for studies addressing management of PPH (Markova 2012)

| **Study** **Description** | **Intervention** | **Inclusion/Exclusion** **Criteria & Population** | **Outcomes** |
| --- | --- | --- | --- |
| Author:Markova et al., 201236Country:DenmarkEnrollment period: 2003, 2005, and 2007Birth setting: NRFacility characteristics: University hospitalFunding: NoneDesign: Pre-post(retrospective database audit) | **Intervention:** Obstetric skills training for all staff including midwives, nurses, auxiliary nurses and doctors. Training d a variety of emergency obstetric situations associated with vaginal birth including PPH.**Groups:****G1: “**Before” (2003) hardly anyone had training**G2: “**During” (2005) almost all had recent training**G3:** “After” (2007) the training was routine & had been repeatedN=number of deliveries**G1T:** 3284**G2T:** 3272**G3T:** 3905N=number of patients who had RBC transfusion for PPH**G1:** 50**G2:** 52**G3:** 46Duration of treatment: NRTiming of treatment: Any transfusion within 7 days of birthOrder of treatment: NRLength of follow-up: NR | **Operational definition of PPH:** NR**Definition of success of treatment**: NR**Method of blood loss measurement:** NR**Severity:** NRInclusion criteria: * Received RBC transfusion w/in 7 days of birth
* Able to obtain medical record

Exclusion criteria: * Unable to obtain medical record
* Transfusion not associated with PPH
* Bleeding due to medical conditions or anticoagulant treatment

**Maternal age, yrs, mean ± SD:** NR**Parity:** NR**Weeks gestation:** NR**Single pregnancy:** NR**Multiple pregnancy:** NR**Race/ethnicity:** NR**BMI:** NR**Baseline hemoglobin:** NR**SES:** NR**Mode of birth, n:** Vaginal,**G1+ G2+G3:** 98Cesarean**G1+ G2+G3:** 50**Risk factors:** NR**Primary etiology of PPH vaginal birth, n (%):** Atony **G1:** 7 (14)**G2:** 9 (17.3)**G3:** 12 (26.1)Trauma/laceration **G1:** 4 (8)**G2:** 9 (17.3)**G3:** 12 (26.1)Retained placenta **G1:** 16 (23)**G2:** 15 (28.8)**G3:** 14 (30.4)**Primary etiology of PPH cesarean birth, n (%):** Atony**G1:** 12 (24)**G2:** 7 (13.5)**G3:** 4 (8.7)Operative complication incl uterine rupture **G1:** 2 (4)**G2:** 5 (9.6)**G3:** 1 (2.2)Placenta accreta **G1:** 4 (8)**G2:** 2 (3.8)**G3:** 2 (4.3)Placenta previa **G1:** 2 (4)**G2:** 3 (5.8)**G3:** 1 (2.2)Placental abruption **G1:** 3 (6)**G2:** 2 (3.8)**G3:** 0 | **Blood loss:** NR**Transfusion rates:****G1:** 1.5%**G2:** 1.6**G3:** 1.2**Number of units, n (%):**1 unit**G1:** 3 (6)**G2:** 2 (3.8)**G3:** 5 (10.9)2 units**G1:** 32 (64)**G2:** 27 (51.9)**G3:** 26 (56.5)3 units**G1:** 3 (6)**G2:** 7 (13.5)**G3:** 8 (17.4)4 units**G1:** 4 (8)**G2:** 9 (17.3)**G3:** 5 (10.9)5 + units**G1:** 8 (16)**G2:** 7 (13.5)**G3:** 2 (4.3)Total**G1:** 162**G2:** 172**G3:** 135**Immediate transfusions (within 24 hours), n:****G1:** 26**G2:** 29**G3:** 21**Delayed transfusions (24 hours to 7 days), n:****G1:** 22**G2:** 17**G3:** 19**Immediate/delayed-ratio****G1:** 1.2**G2:** 1.7**G3:** 1.1**ICU admission:** NR**Anemia:** Pre-transfusion Hgb mmol/L mean,(median; range)**G1:** 4.3 (4.4; 3.5-5.3)**G2:** 4.4 (4.5; 3.7-5.0)**G3:** 4.3 (4.3; 3.5-5.3)Post-transfusion Hgb mean mmol/L**G1:** 5.7**G2:** 6.1**G3:** 5.6**Median time from delivery to manual removal of the placenta** (excluding cases where placental tissue was retained for more than 8 hours): min (n, range):**G1:** 64 (11, 33-131)**G2:** 70 (13, 23-497)**G3:** 75 (13, 35-397)**Need for anesthetic support, n****G1:** 18**G2:** 28**G3:** 24**Time from decision to perform surgery to commencement of the intervention** (for manual removal, exploration of the uterus, & uterine massage or compression, minutes (n, range):**G1:** 30 (15, 0-60)**G2:** 30 (17, 0-80)**G3:** 30 (14, 15-53.5)**Delay for laceration or paravaginal hematomas**, min (n, range):**G1:** 53.5 (2, 42-65)**G2:** 60 (6, 15-185)**G3:** 22.5 (6, 15-405)**Length of stay:** NR**Mortality:** NR**Uterine preservation:** NR**Future fertility:** NR **Breastfeeding:** NR**Psychological impact:** NR**Harms of intervention:** NR**Confounders:** NR**Effect modifiers:** NR |