CMQCC CALIFORNIA MATERNAL QUALITY CARE COLLABORATIVE

Obstetric Hemorrhage Care Summary: Table Chart Format version 1.4

	Assessments	Meds/Procedures	Blood Bank
Stage 0	**Every woman in labor/giving birth**		
Stage 0 focuses on risk assessment and active management of the third stage.	• Assess every woman for **risk factors** for hemorrhage • **Ongoing quantitative evaluation of blood loss** on every birth	**Active Management 3rd Stage:** • **Oxytocin** IV infusion or 10u IM • **Fundal Massage**- vigorous, 15 seconds min.	• If **Medium Risk:**T&Scr • If **High Risk:** T&C 2 U • If **Positive Antibody Screen** (prenatal or current, exclude low level anti-D from RhoGam):T&C 2 U
Stage 1	**Blood loss: >500 ml vaginal or >1000 ml Cesarean, or VS changes (by >15% or HR ≥110, BP ≤85/45, O2 sat <95%)**		
Stage 1 is short: activate hemorrhage protocol, initiate preparations and give Methergine IM.	• Activate OB Hemorrhage Protocol and Checklist • Notify Charge nurse, Anesthesia Provider • VS, O2 Sat q5' • Calculate **cumulative** blood loss q5-15' • **Weigh** bloody materials • Careful inspection with good exposure of vaginal walls, cervix, uterine cavity, placenta	• **IV Access:** at least 18gauge • Increase IV fluid (LR) and **Oxytocin** rate, and repeat **fundal massage** • **Methergine** 0.2mg IM (if not hypertensive) May repeat if good response to first dose, BUT otherwise **move on** to 2nd level uterotonic drug (see below) • Empty bladder: straight cath or place foley with urimeter	• **T&C 2 Units PRBCs** (if not already done)
Stage 2	**Continued bleeding with total blood loss under 1500ml**		
Stage 2 is focused on sequentially advancing through medications and procedures, mobilizing help and Blood Bank support, and keeping ahead with volume and blood products.	**OB back to bedside** (if not already there) • **Extra help**: 2nd OB, Rapid Response Team (per hospital), assign roles • VS & **cumulative** blood loss q 5-10 min • Weigh bloody materials • **Complete evaluation** of vaginal wall, cervix, placenta, uterine cavity • Send additional labs, including DIC panel • If in Postpartum: Move to L&D/OR • Evaluate for special cases: -Uterine Inversion -Amn. Fluid Embolism	**2nd Level Uterotonic Drugs:** • **Hemabate** 250 mcg IM or • **Misoprostol** 800-1000 mcg PR **2nd IV Access** (at least 18gauge) Bimanual massage **Vaginal Birth:** (typical order) • Move to OR • Repair any tears • D&C: r/o retained placenta • Place intrauterine balloon • Selective Embolization (Interventional Radiology) **Cesarean Birth:** (still intra-op) (typical order) • Inspect broad lig, posterior uterus and retained placenta • B-Lynch Suture • Place intrauterine balloon	• **Notify Blood Bank of OB Hemorrhage** • **Bring 2 Units PRBCs to bedside, transfuse per clinical signs – do not wait for lab values** • Use blood warmer for transfusion • Consider thawing 2 FFP (takes 35+min), use if transfusing >2u PRBCs • Determine availability of additional RBCs and other Coag products
Stage 3	**Total blood loss over 1500ml, or >2 units PRBCs given or VS unstable or suspicion of DIC**		
Stage 3 is focused on the Massive Transfusion protocol and invasive surgical approaches for control of bleeding.	• **Mobilize team** -Advanced GYN surgeon -2nd Anesthesia Provider -OR staff -Adult Intensivist • **Repeat labs** including coags and ABG's • Central line • Social Worker/ family support	• **Activate Massive Hemorrhage Protocol** • Laparotomy: -B-Lynch Suture -Uterine Artery Ligation -Hysterectomy • Patient support -Fluid warmer -Upper body warming device -Sequential compression stockings	**Transfuse Aggressively** Massive Hemorrhage Pack • Near 1:1 PRBC:FFP • 1 PLT pheresis pack per 6units PRBCs **Unresponsive Coagulopathy:** After 10 units PRBCs and full coagulation factor replacement: may consider **rFactor VIIa**

California Maternal Quality Care Collaborative (CMQCC): Hemorrhage Taskforce (2009) visit: www.CMQCC.org for details
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