**PREGO NO REBOA data collection tool**

Unique study ID : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Institution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Demographics**

Age (years): \_\_\_\_\_\_ Height (cm): \_\_\_\_\_\_

Pre-partum weight: \_\_\_\_\_\_\_\_\_kg Post-partum weight: \_\_\_\_\_\_\_\_\_kg BMI: \_\_\_\_\_\_\_\_

**Medical history (select all that apply)**

[ ]  Chronic hypertension [ ]  Pregestational type 1 diabetes ([ ]  A1C ≤ 7 [ ]  A1C > 7)

[ ]  Pregestational type 2 diabetes ([ ]  A1C ≤ 7 [ ]  A1C > 7) [ ]  Asthma

[ ]  Previous VTE ([ ]  on prophylaxis or [ ]  therapeutic anticoagulation) [ ]  Chronic kidney disease

[ ]  Antiphospholipid antibody syndrome ([ ]  on prophylaxis) [ ]  Autoimmune disease Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Disorders of collagen production (Marfan’s, Ehlers-Danlos, Loeys-Dietz)

[ ]  Liver disease Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Heart disease [ ]  Bleeding disorder [ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Gestational, Pregnancy and Labor data**

Gestations: \_\_\_\_\_\_\_\_\_ Pregnancy: \_\_\_\_\_\_\_\_\_\_\_\_ Abortions: \_\_\_\_\_\_\_\_\_

Multigestation [ ]  Yes [ ]  No Was labor induced? [ ]  Yes [ ]  No Was delivery pre-mature? [ ]  Yes [ ]  No

if yes, at what gestation? \_\_\_\_\_\_ Days \_\_\_\_\_\_ Weeks

**Co-morbidities during pregnancy (select all that apply)**

[ ] Pre-eclampsia/HTN ([ ]  with severe features [ ]  without severe features)

[ ]  Chronic HTN [ ]  Placenta previa [ ]  Placenta accreta [ ]  Placenta percreta [ ]  HELLP syndrome

[ ]  Gestational diabetes [ ]  Large for gestational age [ ] Chromosomal abnormality, diagnosis: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Uterine fibroids [ ]  Prior uterine surgery (C/S or D/C) [ ]  H/o PPH [ ]  Abnormally invasive placenta

[ ]  IUGR [ ] Chorioamnionitis [ ]  Polyhydramnios [ ] Maximum AFI (cm): \_\_\_\_\_\_\_\_\_ [ ]  Max DVP (cm): \_\_\_\_\_\_\_\_\_\_

[ ]  Amniotic fluid embolism [ ]  Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Delivery Information (tick all that apply)**

Vaginal delivery: [ ]  Spontaneous [ ]  Vacuum assisted[ ]  Forceps assisted [ ]  Breech

Lacerations: [ ]  1st degree [ ]  2nd degree [ ]  3rd degree [ ]  4th degree [ ]  Sulcal [ ]  Cervical

**Trial of labor after Cesarean (TOLAC)**

Successful vaginal birth after cesarean? [ ]  Yes [ ]  No

[ ]  Spontaneous [ ]  Vacuum Assisted [ ]  Forceps Assisted

Laceration degree: [ ]  1st degree [ ]  2nd degree [ ]  3rd degree [ ]  4th degree ([ ]  Sulcal [ ]  Cervical)

[ ]  Non-emergent cesarean -Indication: [ ]  Arrest of dilatation [ ]  Arrest of descent [ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_

[ ]  Emergent Ceserean (failed TOLAC) ([ ] Arrest of dilatation [ ]  Arrest of descent [ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_)

**Cesarean Delivery**

Indication: [ ]  Abnormally invasive placenta [ ]  Uterine Atony

Degree of maximum invasion: [ ]  Accreta [ ]  Increta [ ]  Percreta

Pathology confirmed? [ ]  Yes [ ]  No

List the structures involved/repaired if other than uterus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Was C-section: [ ]  Scheduled [ ]  Emergent Prior cesarean deliveries? [ ]  Yes, #:\_\_\_\_\_\_\_\_ [ ]  No

Gestation at delivery: Weeks: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Days: \_\_\_\_\_\_\_\_\_\_

Placental abruption? [ ] Yes [ ]  No Premature rupture of membranes? [ ]  Yes [ ]  No

Estimated blood loss at delivery: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cc

**Hemorrhage / Demographics**

Date of delivery: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of hemorrhage:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bleeding prior to arrival at hospital? [ ]  Yes [ ]  No Initial body temp: [ ]  <36C [ ]  36-38C [ ]  >38C [ ]  Not done

Lowest systolic blood pressure: [ ]  undetectable [ ]  <50mmHg [ ]  50-80mmHg [ ]  80-100mmHg [ ]  >100mmHg

CPR required? [ ]  Yes [ ]  No Oxygen Given? [ ]  Yes [ ]  No

Lowest O2 Saturation: [ ]  100% [ ]  90-99% [ ]  89-80% [ ]  <80%

 Intubated? [ ]  Yes [ ]  No Problems w/ intubation? [ ]  Yes [ ]  No

Time to resolve hemorrhage: \_\_\_\_\_\_\_\_\_\_\_Hrs \_\_\_\_\_\_\_\_\_\_\_\_Mins Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Arterial Access (if applicable)**

 **(For any arterial line, sheath or catheter placement WITHOUT AORTIC OCCLUSION. If the balloon was inflated AT ANY TIME, please complete the REBOA data collection tool.)**

Access site (select one): [ ]  Femoral [ ]  Brachial/Axillary [ ]  Other, specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Femoral access performed (location): [ ]  ER [ ]  L&D [ ]  OR Side: [ ]  Right [ ]  Left

Technique utilized to achieve CFA access:

[ ]  Ultrasound guided [ ]  Fluoroscopic guided

[ ]  Percutaneous using external landmarks/palpation [ ]  Cutdown

Initial diameter of CFA access [prior to upsizing]:

[ ]  4 French [ ]  5 French [ ]  Other: \_\_\_\_\_\_\_\_ French

Was initial arterial line catheter upsized? [ ]  Yes [ ]  No

If catheter placed for arterial blood pressure monitoring initially, how long was the catheter in place prior to upsizing? \_\_\_\_\_\_\_\_\_\_\_\_ mins

Final sheath diameter for balloon occlusion (select one):

[ ]  4 French [ ]  5 French [ ]  7 French [ ]  8 French [ ]  11 French [ ]  12 French

Was the arterial access ultimately identified as being in the CFA (if confirmed)? [ ]  Yes [ ]  No

If not, location of arteriotomy: [ ]  SFA [ ]  Profunda [ ]  Extra-luminal [ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Type of balloon catheter device (select one):

 [ ]  ER-REBOA plus [ ]  p REBOA PRO [ ]  COBRA-OS [ ]  NEURESCUE [ ]  Tokai 7 French

 [ ]  ER-REBOA [ ]  CODA [ ]  CODA Stat [ ]  Reliant [ ]  Other: \_\_\_\_\_\_\_\_\_\_

Number of attempts to place balloon catheter: [ ]  1 [ ]  2-3 [ ]  >3

Location of device confirmation:

[ ]  Formal Angiography Suite

[ ]  Hybrid Operating (See REBOA sheet)

[ ]  Operating Room

[ ]  ED

[ ]  LND

Method used to confirm positioning of balloon for AO (select one):

[ ]  Intra-abdominal/manual palpation through. If yes, choose incision: ( [ ]  ex-lap incision or [ ]  Fannesteil)

[ ]  Ultrasound [ ]  X-ray [ ]  C-arm fluoroscopy [ ]  None, blind insertion using external landmarks only\*

 \*if no confirmation give reason (ie: ongoing CPR, none available, etc)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Who was the PRIMARY performer (SENIOR member directly involved in hands-on conduct) Select one:

[ ]  Trauma / Acute Care Surgery attending [ ]  Trauma/ Acute Care Surgery Fellow

[ ]  Vascular surgery attending [ ]  Vascular surgery fellow

[ ]  Interventional Radiology Attending [ ]  Interventional Radiology Fellow

[ ]  Surgery Resident (PGY\_\_\_\_\_\_\_\_) [ ]  Emergency Medicine Attending

[ ]  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Confirmation of extremity perfusion (if applicable)**

Pulse exam PRIOR to sheath removal:

[ ]  R \_\_\_\_\_ Palpable \_\_\_\_\_ doppler signals [ ]  L \_\_\_\_\_ Palpable \_\_\_\_\_\_ doppler signals

Was an angiogram performed PRIOR to sheath removal? [ ]  Yes [ ]  No

If so, why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pulse exam AFTER to sheath removal:

[ ]  R \_\_\_\_\_ Palpable \_\_\_\_\_ doppler signals [ ]  L \_\_\_\_\_ Palpable \_\_\_\_\_\_ doppler signals

Was an angiogram performed AFTER sheath removal? [ ]  Yes [ ]  No

If so, why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Resuscitative products prior to definitive hemostatic procedure**

PRBC (Units):\_\_\_\_\_ Fresh frozen plasma (Units):\_\_\_\_\_Platelets (Total packs, i.e. one six pack = 6) :\_\_\_\_\_

Cryoprecipitate (Units) :\_\_\_\_\_Total crystalloids in 1st 24 hours (Liters) :\_\_\_\_\_ Albumin:\_\_\_\_\_ cc

Hetastarch:\_\_\_\_\_cc

Cell saver units:\_\_\_\_\_ mL Vasopressors in 1st 24 hours? [ ]  Yes [ ]  No Factor VIIa given? [ ]  Yes [ ]  No

Tranexamic acid (TXA) given? [ ]  Yes [ ]  No

Lowest Hgb: \_\_\_\_\_\_\_\_\_mg/dL Highest INR: \_\_\_\_\_\_\_\_\_Lowest base deficit: - / +\_\_\_\_\_\_\_\_\_\_

Jehovah’s witness blood refusal: [ ]  Yes [ ]  No Lowest PH: \_\_\_\_\_\_\_\_ Highest lactate: \_\_\_\_\_\_\_\_\_mg/dL

Fibrinogen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hemorrhage Control and Procedural Adjuncts Occurring During Index Procedure**

[ ]  Pitocin (oxytocin), # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ Units

[ ]  Methergine (methylergonovine) # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ total mcg given

[ ]  Hemabate (Carboprost, 15-methyl-PGF2-alpha) # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ total mcg given

[ ]  Synometrine (oxytocin/ergotamine) # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ total mcg given

[ ]  Cytotec (misoprostol) # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ total mcg given

[ ]  Tranexamic acid (give total dose in grams): \_\_\_\_\_\_\_\_ total given in grams

[ ]  Fibrinogen concentrate: Total dose in units: \_\_\_\_\_\_\_

[ ]  KCentra (4-factor concentrate): Total dose in units: \_\_\_\_\_\_\_

[ ]  Recombinant Factor VIIa # of doses: \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ total mcg given

Intrauterine balloon tamponade [ ]  Yes [ ]  No

[ ]  Ligation of the IP ligament ([ ]  Left [ ]  Right [ ]  Bilateral )

[ ] Hysterectomy (Was hysterectomy done with ABO in place? [ ]  Yes [ ]  No )

[ ]  Uterine balloon [ ]  Uterine massage

[ ]  Uterine artery ligation ([ ]  Left [ ]  Right [ ]  Bilateral )

[ ]  Uterine compression sutures( [ ]  Box Sutures [ ]  B-Lynch)

[ ]  Exploratory laparotomy [ ]  Embolization of the pelvis [ ]  Hysterectomy [ ]  Pelvic packing

[ ]  Extremity angiogram [ ]  Arterial repair of access site [ ] Bowel resection

Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hospital Course / Complications / Outcomes**

Additional procedures required during index procedure (check all that apply):

[ ]  Arterial repair of other site related to REBOA, if Y, which artery: \_\_\_\_\_\_\_

 Type of repair [ ]  Stent graft repair [ ]  Primary repair [ ]  Interposition or patch graft repair

Additional procedures required in 1st 24 hours of hospitalization (check all that apply):

[ ]  Exploratory laparotomy [ ]  Embolization of the pelvis [ ]  Hysterectomy [ ]  Pelvic packing

[ ]  Extremity angiogram [ ]  Arterial repair of access site [ ]  Bowel resection

[ ]  Arterial repair of other site related to REBOA, if Y, which artery: \_\_\_\_\_\_\_\_
 Type of repair: [ ]  Stent graft repair [ ]  Primary repair [ ]  Interposition or patch graft repair

**Lab Values in 1st 24 hours**

|  |
| --- |
| Lab Values in 1st 24 hours  |
| Hgb | Hct | Platelets | Base deficit | Ph | INR | PTT | PT | Lactate | D-Dimer | Fibrinogen | Cord blood ABG | Creatinine |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

TEG, LY30: \_\_\_\_\_\_\_ MA: \_\_\_\_\_\_\_

**Resuscitative products in 1st 24 hours post-op/post-procedure (definitive hemostatic procedure)**

PRBC(Units):\_\_\_\_\_ Fresh frozen plasma (Units):\_\_\_\_\_Platelets (Total packs, i.e. one six pack = 6) :\_\_\_\_\_

Cryoprecipitate (Units) :\_\_\_\_\_Total crystalloids in 1st 24 hours (Liters) :\_\_\_\_\_

Albumin:\_\_\_\_\_ ml Hetastarch:\_\_\_\_\_mL Cell saver units:\_\_\_\_\_ mL

Vasopressors in 1st 24 hours? [ ]  Yes [ ]  No Factor VIIa given? [ ]  Yes [ ]  No

Tranexamic acid (TXA) given? [ ]  Yes [ ]  No Lowest Hgb: \_\_\_\_\_\_\_\_\_mg/dL Highest INR: \_\_\_\_\_\_\_\_\_

Lowest base deficit: - / +\_\_\_\_\_\_\_\_\_\_ Jehovah’s witness blood refusal: [ ]  Yes [ ]  No

Lowest PH: \_\_\_\_\_\_\_\_ Highest lactate: \_\_\_\_\_\_\_\_\_mg/dL Fibrinogen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Fetal variables and Outcomes**

Apgar scores: 1 min \_\_\_\_\_\_ 5 mins \_\_\_\_\_\_\_\_\_ Newborn disposition:

[ ]  Nursery [ ]  NICU Newborn additional life support required: [ ] Ventilator [ ] ECMO

**Maternal complications (check all that apply)**

[ ]  Acute kidney injury requiring dialysis [ ] Acute kidney injury NOT requiring dialysis

[ ] ALI or ARDS [ ] Bacteremia [ ]  Pneumonia [ ]  Sepsis or septic shock [ ]  Stroke/CVA [ ]  Paraplegia

[ ]  Neuro deficit secondary to spinal cord ischemia [ ]  Myocardial infarction [ ]  Multi-organ dysfunction / MODS

[ ]  HELLP

[ ] DVT, if yes, location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, therapy: \_\_\_\_\_\_\_\_\_\_\_ start date: \_\_\_\_\_\_\_\_\_\_\_ IVC filter? [ ]  Yes [ ]  No

Start date for chemical prophylaxis: \_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_ / \_\_\_\_\_\_\_\_\_\_\_\_\_

Name of chemical prophylaxis: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Access site complications (tick all that apply)**

[ ]  Hematoma [ ]  Pseudoaneurysm [ ]  Arteriovenous fistula [ ]  Seroma [ ]  CFA stenosis

[ ]  Infection requiring antibiotics only [ ]  Infection requiring surgical intervention

[ ]  Thrombosis, site :( [ ]  Aorta [ ]  Common iliac [ ]  External iliac [ ]  Internal iliac [ ]  Popliteal [ ]  Tibial)

[ ]  Distal thromboembolism requiring anti-coagulation only [ ]  Distal thromboembolism requiring open thrombectomy

[ ]  Distal thromboembolism requiring mechanical and/or pharmacologic thrombolysis

[ ]  Amputation ([ ] BKA [ ]  AKA)

**Maternal Outcomes**

Ventilator (Days):\_\_\_\_\_\_\_\_\_\_\_ ICU LOS (Days): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hospital LOS (Days): \_\_\_\_\_\_\_\_\_\_\_\_

Discharge disposition: [ ]  Rehab/nursing facility [ ]  Home

[ ]  Limb ischemia ­- On side of access? ([ ]  Y [ ]  N)

[ ]  Gluteal necrosis Comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Maternal Mortality**

In-hospital mortality: [ ]  Yes [ ]  No If yes, mortality hospital day: \_\_\_\_\_\_\_\_\_\_

If in-hospital mortality occurred, where (select one): [ ]  ER [ ]  L&D OR [ ]  Gen OR [ ]  Delivery suite [ ]  Ward/floor

[ ]  Interventional radiology [ ] Intensive care unit

Cause of death: [ ]  Hemorrhage [ ]  MODS [ ]  Other, specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_