What You Must Know

1. Responsible for the majority of maternal morbidity; 2nd cause of maternal mortality after PIH.
2. Uterine atony is the most common cause of PPH.
3. Classifications: Class I (~15% of total blood volume), Class II (20-25% TBV), Class III (30-35% of TBV), Class IV (≥ 40% of TBV).
4. Remember “The 4 T’s”
   a. Tone – atonia of the uterus from multiple gestations, polyhydramnios.
   b. Trauma – cervical or vaginal lacerations; placental abruption, uterine inversion
   c. Tissue – retained placental fragments, placental malimplantations (accreta, increta, percreta)
   d. Thrombosis – abnormalities of coagulation, either underlying or acquired

3. Pharmacologic treatment of uterine atony:
   a. Oxytocin – posterior pituitary hormone. Rapid infusion may cause severe hypotension and nausea/vomiting.
   b. Methylergonivine maleate – typically administered IM; side effect marked HTN; contraindicated for use in PIH patients.
   c. Prostaglandins – use with caution in asthmatics.

Postpartum hemorrhage (PPH) is traditionally defined as blood loss exceeding 500 ml after vaginal delivery or 1000 ml after Cesarean section. This blood loss may be rapid, difficult to quantify and may be due to a variety of factors.

The primary cause of PPH is uterine atony which accounts for 80% of cases of PPH. Treatment of uterine atony may include fundal massage and agents which increase uterine tone such as oxytocin, methergine or prostaglandins such as Carboprost or Hemabate.

If PPH is secondary to retained placental fragments, uterine relaxation for manual removal may be achieved with the use of 1mcg/kg of nitroglycerin (80-120 mcg) IV or sublingual spray. Care must be taken with the administration of this agent; fluid resuscitation of the parturient must be adequate to avoid severe hypotension.

Consequences of PPH are death from hypovolemic shock, dilutional coagulopathy and/or pulmonary edema from aggressive fluid resuscitation, sequelae of blood product administration, DIC. Emergent hysterectomy may be required if bleeding cannot be stopped by conventional means.

Additional Reading: