

Table 1: Tips for Quantification of Blood Loss (QBL)

Quantification of maternal blood loss is a team effort.

1. Create a list of dry weights for delivery items that may become blood-soaked with directions on how to calculate blood loss.
2. Begin QBL immediately after the infant's birth (prior to delivery of the placenta) and assess and record the amount of fluid collected in a calibrated under-buttocks drape or suction canister. Keep in mind that most of the fluid collected prior to birth of the placenta is amniotic fluid, urine, and feces. If irrigation is used, deduct the amount of irrigation from the total fluid that was collected.
3. Record the total volume of fluid collected in the under-buttocks drape or suction canister.
4. Subtract the pre-placenta fluid volume from the post-placenta fluid volume to more accurately determine the actual blood lost. Keep in mind that most of the fluid collected after the birth of the placenta is blood.
5. Add the fluid volume collected in the drapes and canister to the blood volume measured by weighing soaked items to determine the cumulative volume of blood loss or QBL.
6. Weigh all blood-soaked materials and clots to determine cumulative volume. $1 \text{ gram weight} = 1 \text{ milliliter blood loss volume}$
7. The equation used when calculating blood loss of a blood soaked item is $\text{WET Item Gram Weight} - \text{DRY Item Gram Weight} = \text{Milliliters of Blood within the item}$

Note. Although a gram is a unit of mass and a milliliter is a unit of volume, the conversion from one to the other is simple.

- Methods to quantify blood loss, such as weighing, are significantly more accurate than EBL (Al Kadri et al., 2011). The use of a calibrated drape had an error rate of less than 15% (Toledo et al., 2007).
- QBL reduces the likelihood that clinicians will underestimate the volume of blood lost and delay early recognition and treatment. See Tables 1 and 2.

Suggested Equipment

- Calibrated under-buttocks drapes to measure blood loss
- Dry weight card, laminated and attached to all scales, for measurement of items that may become blood-soaked when a woman is in labor or after giving birth

Table 2: Tips for Quantification of Blood Loss (QBL) During Cesarean Births

1. Begin the process of QBL when the amniotic membranes are ruptured or after the infant is born.
2. Suction and measure all amniotic fluid within the suction canister of collected fluid before delivery of the placenta.
3. After delivery of the placenta, measure the amount of blood lost in the suction canister and drapes. At this point, most of the blood will be accounted for. Notify the team and document the amount of blood lost in milliliters.
4. Prior to adding irrigation fluid, ensure that the scrub team communicates when irrigation is beginning. Remember that some of the normal saline will be absorbed into the tissues. For this reason, not all of the fluid will be suctioned out of the abdomen and accounted for.
5. One of two methods can be used to suction the irrigation fluid: Continue to suction into the same canister and measure the amount of irrigation fluid OR Provide another suction tube to collect the irrigation separately into another canister.
6. Weigh all blood-soaked materials and clots. Calculate the weight and convert to milliliters.
7. At the conclusion of the surgery, add the volume of quantified blood calculated by weight with the volume of quantified blood in the suction canister to determine total QBL.
8. Note that lap pads dampened with normal saline contain minimal fluid. When they become saturated with blood, weigh them as you would a dry lap pad.
9. QBL will never be exact. However, it is more accurate to do some measurements than to rely solely on visual estimates.

- Scales to weigh blood-soaked items placed ideally in every labor and operating room and on the postpartum unit; save costs by using the scales used to weigh newborns
- Formulas inserted into the electronic charting system that automatically deduct dry weights from wet weights of standard supplies such as chux and peri-pads

REFERENCES

Al Kadri, H. M., Anazi, B. K., & Tamim, H. M. (2011). Visual estimation versus gravimetric measurement of postpartum blood loss: A