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Using Quantitative Blood Loss to Define Hemorrhage in Post-abortion Patients




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# Using Quantitative Blood Loss to Define Hemorrhage in Post-abortion Patients

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## Introduction

The variability in the amount of blood loss used as a "definition" of hemorrhage in various studies is related to the lack of any study correlating blood loss to clinically relevant outcomes. A clear definition is needed to standardize future research on procedural morbidity and interventions to decrease significant blood loss.

## Methods

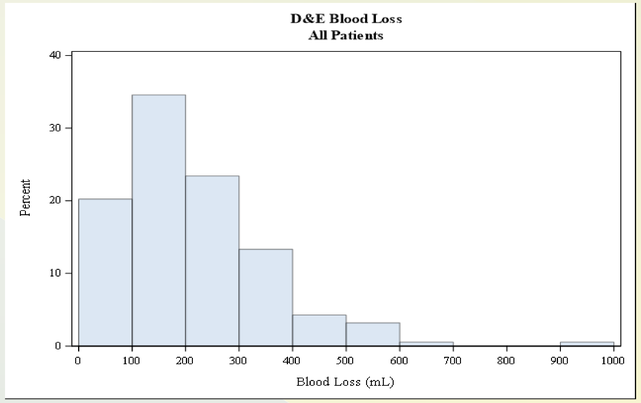
- Reviewed 194 D&E procedures from 5/1/2019 – 10/31/2019 from a de-identified database
- mQBL correlated to the number of above standard post-procedure interventions needed related to bleeding
- Data was analyzed using SAS software version 9.4

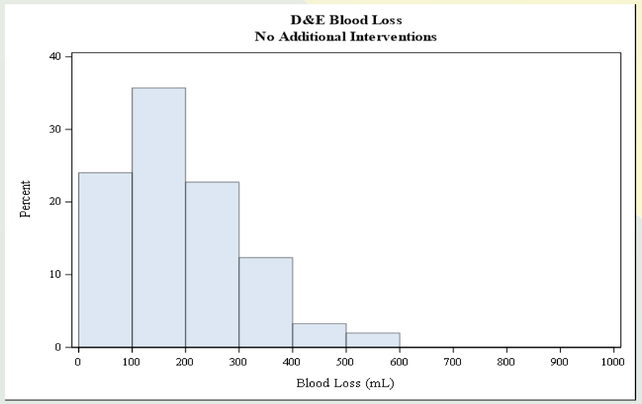
## Demographics

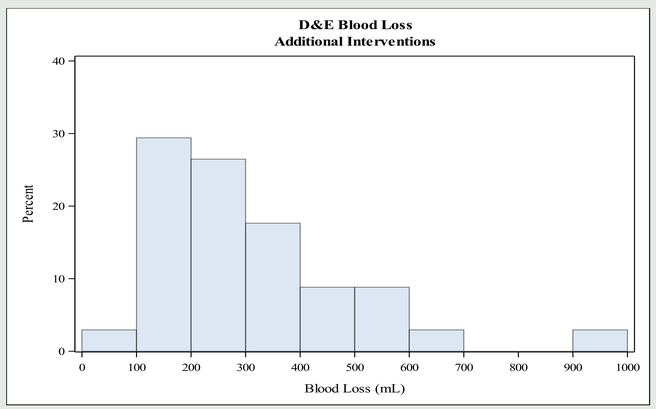
| Demographic | | N (%) |
|---|---|---|
| Age | | 28.6 ± 6.7 |
| Ethnicity | Hispanic or Latino | 130 (69.2%) |
| | Not Hispanic or Latino | 55 (29.3%) |
| | Unknown/Declined to State | 3 (1.6%) |
| Race | White | 78 (41.5%) |
| | Black or African American | 45 (23.9%) |
| | Asian | 15 (8.0%) |
| | Other | 10 (5.3%) |
| | Declined to State | 38 (20.2%) |
| | Unknown/Unavailable | 2 (1.1%) |
| Obese (≥30 kg/m²) | | 73 (38.8%) |
| Previous Cesarean Delivery | | 62 (33.0%) |
| Gestational Age | < 20 wks | 103 (54.8%) |
| | 20 wks – 21 wks 6 days | 44 (23.4%) |
| | ≥ 22 wks | 41 (21.8%) |
| Gravidity | 1 | 31 (16.5%) |
| | 2 | 26 (13.8%) |
| | 3 | 32 (17.0%) |
| | 4 | 31 (16.5%) |
| | 5 | 26 (13.8%) |
| | ≥6 | 42 (22.3%) |
| Parity | 0 | 47 (25.0%) |
| | 1 | 45 (23.9%) |
| | 2 | 48 (25.5%) |
| | ≥3 | 48 (25.5%) |

## Objective

To identify a quantitative blood loss during dilation and evacuation (D&E) procedures that correlates with clinically relevant outcomes to allow a clearer definition of "hemorrhage" as a procedural complication.




## Hypothesis

Median quantitative blood loss (mQBL) will correlate with the rate of post-procedure interventions needed to prevent/manage bleeding and identify an amount of blood loss to clinically define "hemorrhage."

## Results

| ≤ 1 Intervention Groups | N | mQBL [Q1, Q3] |
|---|---|---|
| All Patients | 188 | 155 [100, 250] |
| No Uterotonics | 154 | 150 [100, 225] |
| 1 Uterotonic | 34 | 250 [150, 350] |

| Uterine Factors mQBL | Qualifying Interventions |
|---|---|
| 250 mL | 2 uterotonics: methylergonovine in OR and PACU |
| 450 mL | 2 uterotonics: methylergonovine in OR and PACU |
| 1635 mL intraop, 2500+ mL overall | Uterotonic in PACU (methylergonovine), Tranexamic Acid administration, Uterine balloon tamponade, Blood transfusion |

| Cervical Factors mQBL | Qualifying Interventions |
|---|---|
| 300 mL | Return to OR from PACU, cervical laceration requiring repair |
| 450mL | Cervical laceration requiring repair |

## Conclusions

Based on our limited findings, no single amount of blood loss is easily correlated with clinical "hemorrhage."

**Limitations:** We noted relatively few events requiring interventions for bleeding-related complications; a larger sample may demonstrate a clearer correlation of QBL and "hemorrhage."

This is an ongoing research project. Investigation will continue to include 12 months of D&E procedures (3/1/2019- 4/30/2020) to examine a larger sample of data.