**SUPPLEMENTAL DATA ON PRELABOR CESAREAN DELIVERY**

**Figure 1. Initial and Most Proximate Modes of Anesthesia Prior to Prelabor Cesarean Delivery**

**Initial Mode of Anesthesia prior to CD**

Epidural (n=30)

Spinal (n=482)

CSE (n=273)

GA (n=34)

Failures (n=9):

1 converted to CSE;

3 converted to Epidural;

5 converted to GA

Successes (n=473)

Failures (n=7):

1 converted to CSE;

6 converted to GA

Successes (n=23)

Failures (n=8) converted to GA

Successes (n=265)

CSE (n=267)

GA (n=53)

Epidural (n=26)

**Most Proximate Mode of Anesthesia Prior to CD**

Spinal (n=473)

CD = Cesarean Delivery; CSE = Combined Spinal-Epidural; GA = General Anesthesia

**Table 1. Indicators for Prelabor Cesarean Delivery According to Mode of Anesthesia**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total (n=819)** | **Spinal (n=473)** | **CSE (n=267)** | **Epidural (n=26)** | **GA (n=53)** |
| Prior CD (Elective repeat) | 460 (56.2%) | 246 (52%) | 180 (67.4%) | 10 (38.5%) | 24 (45.3%) |
| Macrosomia | 22 (22.7%) | 15 (3.2%) | 7 (2.6%) | 0 | 0 |
| Placenta previa | 121 (14.8%) | 37 (7.8%) | 47 (17.6%) | 6 (23.1%) | 31 (58.5%) |
| Malpresentation | 114 (13.9%) | 84 (17.8%) | 22 (8.3%) | 5 (19.2%) | 3 (5.7%) |
| Multiple gestation | 91 (11.1%) | 57 (12.1%) | 28 (10.5%) | 2 (7.7%) | 4 (7.6%) |
| Pre-eclampsia | 53 (6.5%) | 30 (6.3%) | 13 (4.9%) | 5 (19.2%) | 5 (9.4%) |
| Abnormal placentation | 43 (5.3%) | 7 (1.5%) | 10 (3.8%) | 6 (23.1%) | 20 (37.7%) |
| Prior myomectomy | 28 (3.4%) | 15 (3.2%) | 12 (4.5%) | 1 (3.9%) | 0 |
| Other indication | 28 (3.4%) | 20 (4.2%) | 5 (1.9%) | 1 (3.9%) | 2 (3.8%) |
| Non reassuring fetal trace | 24 (2.9%) | 9 (1.9%) | 9 (3.4%) | 2 (7.7%) | 4 (7.6%) |
| Fetal anomaly or anomalies | 21 (2.6%) | 12 (2.5%) | 8 (3%) | 0 | 1 (1.9%) |
| Antenatal bleeding | 18 (2.2%) | 7 (1.5%) | 5 (1.9%) | 2 (7.7%) | 4 (7.6%) |
| Failed ECV | 18 (2.2%) | 13 (2.8%) | 3 (1.1%) | 2 (7.7%) | 0 |
| Oligohydramnios | 17 (2.1%) | 10 (2.1%) | 5 (1.9%) | 2 (7.7%) | 0 |
| IUGR | 11 (1.3%) | 5 (1.1%) | 6 (2.3%) | 0 | 0 |
| Uterine or Cervical fibroid(s) | 9 (1.1%) | 5 (1.1%) | 3 (1.1%) | 0 | 1 (1.9%) |
| PPROM | 8 (0.9%) | 7 (1.5%) | 1 (0.4%) | 0 | 0 |
| Maternal request | 6 (0.7%) | 4 (0.9%) | 2 (0.8%) | 0 | 0 |
| Uterine abnormality | 5 (0.6%) | 3 (0.6%) | 2 (0.8%) | 0 | 0 |
| CPD | 5 (0.6%) | 5 (1.1%) | 0 | 0 | 0 |
| HELLP syndrome | 4 (0.5%) | 2 (0.4%) | 1 (0.4%) | 1 (3.9%) | 0 |
| Herpes | 3 (0.4%) | 2 (0.4%) | 1 (0.4%) | 0 | 0 |
| IUFD | 2 (0.2%) | 1 (0.2%) | 0 | 0 | 1 (1.9%) |

Data presented as n (%)

CD = cesarean delivery; CPD = cephalopelvic disproportion; ECV = external cephalic version; IUFD = intrauterine fetal death; IUGR= intrauterine growth retardation; PPROM = preterm premature rupture of membranes;

These indicators were manually abstracted from the medical record.

Column percentages are greater than 100% as one patient could have more than one indicator.

We designated labor arrest if the medical record indicated any of the following as an indication for cesarean section: active phase arrest, arrest of descent, failure of descent, failure to descend, arrest of dilatation, active phase arrest, arrest of labor, failure to progress.

**Table 2. Rates of Severe Blood Loss, and Red Blood Cell Transfusion according to Predelivery Hemoglobin Categories among Cases during Prelabor Cesarean Delivery.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Predelivery Hb >11 g/dl (n=195)** | **Predelivery Hb: 10 – 10.9 g/dl (n=44)** | **Predelivery Hb: <10 g/dl (n=24)** | **P value** |
| Estimated Blood Loss ≥1500 ml | 172 (88.2%) | 34 (77.3%) | 13 (54.2%) | <0.001 |
| Intraoperative RBC transfusion | 53 (27.2%) | 22 (50%) | 14 (58.3%) | <0.001 |
| Postoperative RBC transfusion (within 48 hrs of CD) | 62 (31.8%) | 18 (40.9%) | 8 (33.3%) | 0.51 |

CD= cesarean delivery; RBC = red blood cells

**SUPPLEMENTAL DATA ON INTRAPARTUM CESAREAN DELIVERY**

**Figure 2. Initial and Most Proximate Modes of Anesthesia Prior to Intrapartum Cesarean Delivery**

Epidural (n=567)

**Initial Mode of Anesthesia prior to CD**

Spinal (n=176)

CSE (n=74)

GA (n=33)

Successes (n=173)

Successes (n=73)

Failure (n=1): converted to GA

Successes (n=555)

Failures (n=3):

1 converted to Epidural;

2 converted to GA

Failures (n=12):

4 converted to Spinal;

3 converted to CSE;

4 converted to GA;

1 replaced with new epidural

**Most Proximate Mode of Anesthesia Prior to CD**

Spinal (n=177)

Epidural (n=557)

GA (n=40)

CSE (n=76)

CD = Cesarean Delivery; CSE = Combined Spinal-Epidural; GA = General Anesthesia

**Table 3. Indicators for Intrapartum Cesarean Delivery According to Mode of Anesthesia**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total (n=850)** | **Spinal (n=177)** | **CSE (n=76)** | **Epidural (n=557)** | **GA (n=40)** |
| Non-reassuring fetal trace | 650 (76.5%) | 156 (88.1%) | 71 (93.4%) | 400 (71.8%) | 23 (57.5%) |
| Labor Arrest | 275 (32.4%) | 16 (9%) | 6 (7.9%) | 250 (44.9%) | 3 (7.5%) |
| Failed Induction | 163 (19.2%) | 13 (7.3%) | 6 (7.8%) | 141 (25.3%) | 3 (7.5%) |
| Prior CD + labor | 136 (16%) | 66 (37.3%) | 36 (47.4%) | 29 (5.2%) | 5 (12.5%) |
| Malpresentation | 69 (8.1%) | 37 (20.9%) | 10 (13.2%) | 18 (3.2%) | 4 (10%) |
| Pre-eclampsia, maternal hypertension | 58 (6.8%) | 9 (5.1%) | 1 (1.3%) | 44 (7.9%) | 4 (10%) |
| Oligohydramnios | 35 (4.1%) | 3 (1.7%) | 1 (1.3%) | 27 (4.9%) | 4 (10%) |
| Suspected placental abruption | 34 (4%) | 7 (4%) | 4 (5.3%) | 15 (2.7%) | 8 (20%) |
| Multiple gestation | 28 (3.3%) | 11 (6.2%) | 6 (7.9%) | 11 (2%) | 0 |
| CPD | 26 (3.1%) | 1 (0.6%) | 1 (1.3%) | 24 (4.3%) | 0 |
| Macrosomia | 22 (2.6%) | 3 (1.7%) | 1 (1.3%) | 18 (3.2%) | 0 |
| Failed instrumental  | 21 (2.5%) | 0 | 0 | 19 (3.4%) | 2 (5%) |
| PTL or PPROM | 14 (1.7%) | 6 (3.4%) | 1 (1.3%) | 2 (0.4%) | 5 (12.5%) |
| Prior myomectomy | 11 (1.3%) | 5 (2.8%) | 4 (5.3%) | 0 | 2 (5%) |
| Other | 8 (0.9%) | 1 (0.6%) | 0 | 7 (1.3%) | 0 |
| Placenta previa | 8 (0.9%) | 1 (0.6%) | 6 (7.9%) | 0 | 1 (2.5%) |
| Vaginal bleeding | 8 (0.9%) | 1 (0.6%) | 1 (1.3%) | 2 (0.4%0 | 4 (10%) |
| Failed TOLAC | 3 (0.4%) | 0 | 0 | 3 (0.5%) | 0 |
| Placenta accreta | 1 (0.1%) | 0 | 0 | 1 (0.2%) | 0 |
| IUFD | 1 (0.1%) | 1 (0.6%) | 0 | 0 | 0 |

Data presented as n (%)

CD = cesarean delivery; CPD = cephalopelvic disproportion; IUFD = intrauterine fetal death; PPROM = preterm premature rupture of membranes; PTL = preterm labor; TOLAC = trial of labor after cesarean

These indicators were manually abstracted from the medical record.

Column percentages are greater than 100% as one patient could have more than one indicator.

We designated labor arrest if the medical record indicated any of the following as an indication for cesarean section: active phase arrest, arrest of descent, failure of descent, failure to descend, arrest of dilatation, active phase arrest, arrest of labor, failure to progress.

**Table 4. Rates of Severe Blood Loss, and Red Blood Cell Transfusion according to Predelivery Hemoglobin Categories among Cases during Intrapartum Cesarean Delivery**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Predelivery Hb >11 g/dl (n=200)** | **Predelivery Hb: 10 – 10.9 g/dl (n=43)** | **Predelivery Hb: <10 g/dl (n=28)** | **P value** |
| Estimated Blood Loss ≥1500 ml | 157 (77.3%) | 30 (69.8%) | 16 (57.1%) | 0.04 |
| Intraoperative RBC transfusion | 34 (17%) | 6 (13.9%) | 9 (32.1%) | 0.11 |
| Postoperative RBC transfusion (within 48 hrs of CD) | 79 (39.5%) | 22 (51.2%) | 16 (57.1%) | 0.11 |

CD = cesarean delivery; RBC = red blood cells