**Supplementary data file 2:**

**Table S1**: Maternal, pregnancy and delivery characteristics among maternal deaths from amniotic fluid embolism, intra/postpartum maternal deaths from other causes and women from the French National Perinatal Survey

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Maternal deaths due to AFE****n=36** | **Intra/post partum maternal deaths from other causes****n=212** | **NPS women****n=14,681** |
| **Characteristics** | **n** | **%** | **%** | **%** |
| **Maternal age >35 years** | 15 | 41.7 | 35.9 | (n=14,401)19.2 |
| **BMI before pregnancy ≥ 30kg.m-2** | 6 | (n=33)18.2 | 19.8 | (n=13,644)9.9 |
| **Atopy** | 7 | 19.4 | (n=186)15.1 | NA |
| **Assisted Reproduction Technology** | 4 | 11.1 | 6.3 | (n=13,677)5.5 |
| **Parity**01-3≥4 | 10215 | 27.858.413.9 | (n=207)31.953.86.3 | (n=14,499)43.419.32.8 |
| **Multiple pregnancy** | 1 | 2.8 | 6.0 | (n=14,903)1.5 |
| **Non-cephalic fetal presentation** | 2 | 5.6 | (n=138)13.0 | (n=14,600)4.7 |
| **Labor** | 32 | 88.9 | (n=197)48.7 | (n=14624)89.2 |
| Induction of labor | 16 | (n=36)44.4 | (n=197)17.3 | (n=14,624)22.6 |
| With prostaglandins | 9 | 25.0 | 11.2 |  |
| Oxytocin during labor | 18 | (n=32)56.3 | (n=96)41.7 | (n=12825)63.9 |
| Artificial membrane rupture if spontaneous labor | 7 | (n=15)46.7% | (n=62)29.0 | (n=9619)51.0 |
| **Mode of delivery** |  | (n=36) | (n=209) | (n=14,510) |
| Spontaneous vaginal | 5 | 13.9 | 29.2 | 66.9 |
| Operative vaginal | 7 | 19.4 | 6.2 | 12.1 |
| CS before laborElectiveIn emergency | 330 | 8.38.30 | 48.322.977.1 | 10.8 |
| CS during laborFetal indication onlyMaternal indication onlyBoth | 191108 | 52.85.652.644.4 | 14.8 | 10.2 |
| No delivery | 2 | 5.6 | 0 | 0 |
| **Gestational age at delivery < 37 weeks** | 5 | 13.9 | (n=199)45.2 | (n=14,628)6.8 |
| **Male newborn** | 23 | (n=35)65.7 | (n=173)46.8 | (n=14,628)52.3 |
| **Newborn weight ≥4000g** | 4 | (n=33)12.1 | (n=167)6.6 | (n=14565)7.1 |
| **Neonatal death** | 6 | (n=28)21.4 | (n=198)12.6 | (n=14,676)0.5 |

AFE: amniotic fluid embolism; CS: cesarean section; 2010 NPS: 2010 National Perinatal Survey, a national representative sample of deliveries in France.

**Table S2**: Specific examinations of AFE by clinicians in charge of the women who died from AFE in France (2007-2011) overall and by presence of all 4 proposed diagnostic criteria for the case definition of AFE or not

|  |  |
| --- | --- |
|  | **Women who died from AFE** |
|  | **Total****n=36** | **With all 4 proposed criteria****n=21** | **With at least one missing criterion****n=15** |
| Tests/procedures performed | n (%) | n (%) | n (%) |
| **Autopsy performed**In favor of AFEResults unavailable | 16 (44)123 | 7 (33)42 | 9 (60)81 |
| **Women with suspected diagnosis of AFE by clinicians before maternal death**Missing data | **28 (85)** 3  | **18 (90)**1  | **10 (77)**2  |
| **If diagnosis of AFE suspected** |
| **Specific biological tests performed**In favor of AFE | 23 (82)14 | 15 (83)10  | 8 (80)4 |
| Search for amniotic fluid debris or squamous cells  |  |  |  |
| In maternal bloodIn favor of AFE | 14 (50) 4 | 10 (56) 3 | 4 (40) 1 |
| In bronchoalveolar fluid In favor of AFE | 10 (36)8 | 6 (33)5 | 4 (40)3 |
| Plasma tryptase activityLow activityModerately increased activity  | 11 (39)92 | 7 (25)61 | 4 (40)31 |
| Plasma IGFBP-1 dosageIn favor of AFE | 7 (25)5 | 5 (28)4 | 2 (20)1 |

IGFBP-1: Insulin-like growth factor binding protein

**Table S3**: Management of obstetric hemorrhage in women who died from AFE and with clinical coagulopathy

|  |  |
| --- | --- |
| **Management of obstetrical hemorrhage** | **Women who died from AFE with clinical coagulopathy****n=30** |
|  |
|  | n | % |
| SulprostoneIntra-uterine balloonVascular ligationUterine sutureHysterectomyAbdominal packingBlood transfusionRed blood cellsPlateletsFresh frozen plasmaFibrinogen concentrateFactor rVIIa | 2125318329281527193 | 70717106010979450906310 |