**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**  0  1-3  ≥4 | 10  21  5 | 27.8  58.4  13.9 | (n=207)  31.9  53.8  6.3 | (n=14,499)  43.4  19.3  2.8 |
| **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 labor  Elective  In emergency | 3  3  0 | 8.3  8.3  0 | 48.3  22.9  77.1 | 10.8 |
| CS during labor  Fetal indication only  Maternal indication only  Both | 19  1  10  8 | 52.8  5.6  52.6  44.4 | 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 AFE  Results unavailable | 16 (44)  12  3 | 7 (33)  4  2 | 9 (60)  8  1 |
| **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 blood  In 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 activity  Low activity  Moderately increased activity | 11 (39)  9  2 | 7 (25)  6  1 | 4 (40)  3  1 |
| Plasma IGFBP-1 dosage  In 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 | % |
| Sulprostone  Intra-uterine balloon  Vascular ligation  Uterine suture  Hysterectomy  Abdominal packing  Blood transfusion  Red blood cells  Platelets  Fresh frozen plasma  Fibrinogen concentrate  Factor rVIIa | 21  2  5  3  18  3  29  28  15  27  19  3 | 70  7  17  10  60  10  97  94  50  90  63  10 |