Amniotic Fluid Embolism
Study 01/15
Data Collection Form - CASE

Case Definition:

EITHER a clinical diagnosis of AFE (acute hypotension or cardiac arrest, acute hypoxia or coagulopathy in the absence of any other potential explanation for the symptoms and signs observed)

OR a pathological diagnosis (presence of fetal squames or hair in the lungs).

Case ID Number: }

Please return the completed form to:

ukoss@npeu.ox.ac.uk

UKOSS
National Perinatal Epidemiology Unit
University of Oxford, Old Road Campus, Oxford, OX3 7LF

Phone: 01865 617764 / 617774

Reporting Month: _________________________
Reporting Hospital: _________________________
Instructions

1. Please do not enter any personally identifiable information (e.g. name, address or hospital number) on this form.
2. Please record the ID number from the front of this form against the woman’s name on the Clinician’s Section of the blue card retained in the UKOSS folder.
3. Fill in the form using the information available in the woman’s case notes.
4. Tick the boxes as appropriate. If you require any additional space to answer a question please use the space provided in section 7.
5. Please complete all dates in the format DD/MM/YY, and all times using the 24hr clock e.g. 18.37.
6. If codes or examples are required, some lists (not exhaustive) are included on the back page of the form.
7. If the woman has not yet delivered, please complete the form as far as you are able, excluding delivery and outcome information, and return to the UKOSS Administrator. We will send these sections again for you to complete two weeks after the woman’s expected date of delivery.
8. If you do not know the answers to some questions, please indicate this in section 7.
9. If you encounter any problems with completing the form please contact the UKOSS Administrator or use the space in section 7 to describe the problem.

Section 1: Woman’s details

<table>
<thead>
<tr>
<th>1.1 Year of birth</th>
<th>Y Y Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Ethnic group* (enter code, please see back cover for guidance)</td>
<td></td>
</tr>
<tr>
<td>1.3 Marital status single</td>
<td>married</td>
</tr>
<tr>
<td>1.4 Was the woman in paid employment at booking? Yes</td>
<td>No</td>
</tr>
<tr>
<td>If Yes, what is her occupation ____________________________</td>
<td></td>
</tr>
<tr>
<td>If No, what is her partner’s (if any) occupation ____________________________</td>
<td></td>
</tr>
<tr>
<td>1.5 Height at booking cm</td>
<td></td>
</tr>
<tr>
<td>1.6 Weight at booking kg</td>
<td></td>
</tr>
<tr>
<td>1.7 Smoking status never</td>
<td>gave up prior to pregnancy</td>
</tr>
</tbody>
</table>

Section 2: Previous Obstetric History

<table>
<thead>
<tr>
<th>2.1 Gravidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of previous completed pregnancies beyond 24 weeks</td>
</tr>
<tr>
<td>Number of previous pregnancies less than 24 weeks</td>
</tr>
<tr>
<td>If no previous pregnancies, please go to section 3.</td>
</tr>
<tr>
<td>2.2 Did the woman have any previous pregnancy problems? Yes</td>
</tr>
<tr>
<td>If Yes, please specify ____________________________</td>
</tr>
</tbody>
</table>

Section 3: Previous Medical History

| 3.1 Please indicate whether the woman had any of the following previous or pre-existing medical conditions: |
| History of allergy Yes | No |
| History of atopy (asthma, eczema, hayfever) Yes | No |
| Essential hypertension Yes | No |
| Diabetes mellitus Yes | No |
| 3.2 Did the woman have any other pre-existing medical problems? Yes | No |
| If Yes, please specify details ____________________________ |
Section 4a: This Pregnancy

4a.1 Final Estimated Date of Delivery (EDD)**

4a.2 Was this pregnancy a multiple pregnancy?
   If Yes, specify number of fetuses
   Yes ☐ No ☐

4a.3 Was placenta praevia diagnosed?
   If Yes, please specify the grade
   Yes ☐ No ☐

4a.4 Did the woman have a placental abruption?
   Yes ☐ No ☐

4a.5 Did the woman develop any hypertensive disorder?
   If Yes, please specify
   Date of onset
   Time of onset
   Pregnancy induced hypertension ☐ ☐ ☐
   Pre-eclampsia (hypertension and proteinuria) ☐ ☐ ☐
   Eclampsia ☐ ☐ ☐ ☐
   Other ☐ ☐ ☐ ☐
   If Other, please specify ________________________________

4a.6 Did the woman have chorioamnionitis?
   Yes ☐ No ☐

4a.7 Did the woman have polyhydramnios?
   Yes ☐ No ☐

4a.8 Did the woman develop gestational diabetes?
   Yes ☐ No ☐

4a.9 Were there any other problems in this pregnancy??
   If Yes, please specify ________________________________

Section 4b: Diagnosis of amniotic fluid embolism

4b.1 Please indicate if any of the following features were present at or immediately preceding diagnosis
   Tick all that apply Please rank the features in order of occurrence (1,2,3,etc)
   Acute fetal compromise ☐ ☐
   Cardiac arrest ☐ ☐
   Cardiac rhythm problems ☐ ☐
   Coagulopathy ☐ ☐
   Hypotension ☐ ☐
   Maternal haemorrhage ☐ ☐
   Premonitory symptoms e.g. restlessness, agitation, numbness, tingling ☐ ☐
   Seizure ☐ ☐
   Shortness of breath ☐ ☐

4b.2 Was an echocardiogram done following collapse?
   Yes ☐ No ☐
   If Yes, did the woman have abnormal echocardiogram findings?
   Yes ☐ No ☐
   If Yes, please indicate what the abnormal findings were?
   ________________________________

*For guidance please see back cover
### Section 4c: Laboratory tests

Please specify the first results after diagnosis and the worst haematological parameters recorded at the time of the AFE or tick if not recorded?

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Diagnosis value</th>
<th>Tick if diagnosis value not recorded</th>
<th>Worst value</th>
<th>Tick if worst value not recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb g/dL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platelet count (x10^9/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT (sec)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APTT (sec)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APTT (ratio) APTT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fibrinogen (g/dL)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-dimer (ng/ml)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tryptase (µg/l)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Section 4d: Maternal event

4d.1 Date and time of event

4d.2 Date and time diagnosis first considered

4d.3 Were membranes ruptured at time of event?
   - If Yes, please state date and time of rupture
     - Was rupture
       - Artificial
       - Spontaneous

4d.4 Was there meconium staining of liquor?

4d.5 Was there fetal distress before maternal collapse?
   - If Yes, please specify

4d.6 Was woman:
   - Not in labour
   - First stage
   - Second stage
   - Post-delivery

4d.7 What was the contraction frequency at time of event? (number in 10 mins)

4d.8 Did the woman have any anaesthetic/analgesia at time of collapse?
   - Spinal
   - Epidural
   - Combined spinal epidural
   - GA
   - None

4d.9 Were any of the following clinical staff present at the time of collapse?
   - If No, please indicate date and time first saw woman after collapse
   - OR Tick if did not see woman

<table>
<thead>
<tr>
<th>Clinical Staff</th>
<th>Present</th>
<th>Not Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant obstetrician</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Consultant anaesthetist</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Senior midwife (band 7 or above)</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
### Section 4e: Management

#### 4e.1 Please indicate what treatments were undertaken, when they were first used and total units/dose given where applicable

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Date First Given</th>
<th>Time First Given</th>
<th>Total Dose</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syntocinon infusion</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ergometrine</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostaglandin F2α</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misoprostol</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemabate</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whole blood or packed red cells</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryoprecipitate</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh frozen plasma</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Platelets</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell salvage</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fibrinogen</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor VIIa</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heparin</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tranexamic acid</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>D M Y</td>
<td>h m m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*If Other, please specify _______________________

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrauterine balloons</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Intrauterine packing</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>B-lynch or other brace suture</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Vessel embolisation</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Vessel ligation</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Intra-arterial balloons</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Hysterecomy</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Intra-abdominal packing</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Exchange transfusion</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Plasma exchange</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
<tr>
<td>Apheresis</td>
<td>D M Y</td>
<td>h m m</td>
</tr>
</tbody>
</table>

*For guidance please see back cover*
Section 5: Delivery

5.1 Was delivery induced? 
   Yes ☐ No ☐
   If Yes, what was the reason for induction? ____________________________
   If Yes, was vaginal prostaglandin used? Yes ☐ No ☐
   If Yes, please record the preparation and total dose of prostaglandin given (mg)

5.2 Did the woman labour? 
   Yes ☐ No ☐
   If Yes, what date and time was labour diagnosed? ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
   Was syntocinon used during labour? Yes ☐ No ☐
   Duration of syntocinon during labour ____________________________
   Did hyperstimulation occur? (contractions more than 5 in 10 minutes) Yes ☐ No ☐
   If Yes, for how long did hyperstimulation occur? ☐ ☐ ☐ ☐ hrs ☐ ☐ mins

5.3 Was delivery by caesarean section? 
   Yes ☐ No ☐
   If Yes, please state whether
« Grade of urgency*: Elective ☐ OR Emergency ☐
« Indication for caesarean section ____________________________
« Method of anaesthesia: Regional ☐ General anaesthetic ☐

5.4 Did the woman have manual removal of her placenta? 
   Yes ☐ No ☐

Section 6: Outcomes

Section 6a: Woman

6a.1 Was the woman admitted to ITU/HDU? 
   Yes ☐ No ☐
   If Yes, please indicate date and time of admission: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
   Duration of stay ☐ ☐ days
   Or Tick if woman is still in ITU/HDU ☐
   Or Tick if woman was transferred to another hospital ☐

6a.2 Did the woman have permanent neurological injury (e.g. hypoxic brain injury, persistent vegetative state)? 
   Yes ☐ No ☐
   If Yes, please give details ____________________________

6a.3 Did any other major maternal morbidity occur?* 
   Yes ☐ No ☐
   If Yes, please specify ____________________________

6a.4 Did the woman die? 
   Yes ☐ No ☐
   If Yes, please specify date and time of death ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
   What was the primary cause of death as stated on the death certificate? 
   (Please state if not known) ____________________________
   Was a post mortem examination undertaken? Yes ☐ No ☐
   If Yes, were fetal squames or hair found in the lungs? ____________________________

*For guidance please see back cover
Section 6b: Infant

NB: If more than one infant, for each additional infant, please photocopy the infant section of the form (before filling it in) and attach extra sheet(s) or download additional forms from the website: www.npeu.ox.ac.uk/ukoss

6b.1 Date and time of delivery

6b.2 Mode of delivery
- Spontaneous vaginal
- Ventouse
- Lift-out forceps
- Rotational forceps
- Breech
- Pre-labour caesarean section
- Caesarean section after onset of labour

6b.3 Birthweight

6b.4 Sex of infant
- Male
- Female
- Indeterminate

6b.5 Was the infant stillborn?
- Yes
- No
- Ante-partum
- Intra-partum

If Yes, go to section 7

6b.6 5 min Apgar

6b.7 Was the infant admitted to the neonatal unit?
- Yes
- No
- Please state the duration of stay in days
- Tick if the infant is still in the neonatal unit
- Tick if the infant was transferred to another hospital

6b.8 Did any other major infant complications occur?*
- Yes
- No
- Please specify details

6b.9 Did this infant die?
- Yes
- No
- Please specify date of death
- What was the primary cause of death as stated on the death certificate?

(Please state if not known)

Section 7:
Please use this space to enter any other information you feel may be important

Section 8:
Name of person completing the form

Designation

Today’s date

You may find it useful in the case of queries to keep a copy of this form.

*For guidance please see back cover
Definitions

1. UK Census Coding for ethnic group
   WHITE
   01. British
   02. Irish
   03. Any other white background
   MIXED
   04. White and black Caribbean
   05. White and black African
   06. White and Asian
   07. Any other mixed background
   ASIAN OR ASIAN BRITISH
   08. Indian
   09. Pakistani
   10. Bangladeshi
   11. Any other Asian background
   BLACK OR BLACK BRITISH
   12. Caribbean
   13. African
   14. Any other black background
   CHINESE OR OTHER ETHNIC GROUP
   15. Chinese
   16. Any other ethnic group

2. Previous or current pregnancy problems, including:
   3 or more miscarriages
   Amniocentesis
   Baby with a major congenital abnormality
   Gestational diabetes
   Haemorrhage
   Hyperemesis requiring admission
   Infant requiring intensive care
   Neonatal death
   Placenta praevia
   Placental abruption
   Post-partum haemorrhage requiring transfusion
   Pre-eclampsia (hypertension and proteinuria)
   Premature rupture of membranes
   Preterm birth or mid trimester loss
   Puerperal psychosis
   Thrombotic event
   Severe infection e.g. pyelonephritis
   Stillbirth
   Surgical procedure in pregnancy

3. Previous or pre-existing maternal medical problems, including:
   Cardiac disease (congenital or acquired)
   Diabetes
   Epilepsy
   Endocrine disorders e.g. hypo or hyperthyroidism
   Essential hypertension
   Haematological disorders e.g. sickle cell disease, diagnosed thrombophilia
   Inflammatory disorders e.g. inflammatory bowel disease
   Psychiatric disorders
   Renal disease

4. Estimated date of delivery (EDD):
   Use the best estimate (ultrasound scan or date of last menstrual period) based on a 40 week gestation

5. RCA/RCOG/CEMACH/CNST Classification for urgency of caesarean section:
   1. Immediate threat to life of woman or fetus
   2. Maternal or fetal compromise which is not immediately life-threatening
   3. Needing early delivery but no maternal or fetal compromise
   4. At a time to suit the woman and maternity team

6. Major maternal morbidity, including:
   Adult respiratory distress syndrome
   Cardiac arrest
   Cerebrovascular accident
   Disseminated intravascular coagulopathy
   HELLP
   Mendelson’s syndrome
   Persistent vegetative state
   Renal failure
   Required ventilation
   Septicaemia
   Thrombotic event

7. Fetal/infant complications, including:
   Chronic lung disease
   Exchange transfusion
   Intraventricular haemorrhage
   Jaundice requiring phototherapy
   Major congenital anomaly
   Necrotising enterocolitis
   Neonatal encephalopathy
   Respiratory distress syndrome
   Severe infection e.g. septicaemia, meningitis