ID Number:

UKOSS

UK Obstetric Surveillance System

Maternal Pulmonary Aspiration in Pregnancy Study 04/13

Data Collection Form - CASE

Please report any woman delivering on or after 01/09/2013 and before 01/09/15

Case Definition:

Please report any woman with a final diagnosis of pulmonary aspiration during pregnancy or delivery up to postpartum discharge from hospital.

Maternal pulmonary aspiration includes women with the following features

- Women who have had an unprotected airway while unconscious, semi-conscious or paralysed

AND

- A clinical history consistent with regurgitation of stomach contents and pulmonary aspiration (e.g vomiting after induction of anaesthesia or gastric contents seen in the oropharynx)

AND

- Symptoms / signs of respiratory compromise requiring supplementary oxygen and antibiotics or level 2 or level 3 (HDU or ITU) respiratory support, in the absence of any other clear cause

Classical radiological findings may or may not be present

Royal College of Obstetricians and Gynaecologists

Bringing to life the best in women's health care

Please return the completed form to:

UKOSS
National Perinatal Epidemiology Unit
University of Oxford
Old Road Campus
Oxford
OX3 7LF
Fax: 01865 617775
Phone: 01865 289714

Case reported in: _____

npeu National Perinatal Epidemiology Unit

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

1.1 Year of birth Y Y Y Y

1.2 Ethnic group[1]* *(enter code, please see back cover for guidance)* ☐☐

1.3 Marital status single ☐ married ☐ cohabiting ☐

1.4 Was the woman in paid employment at booking? Yes ☐ No ☐

If Yes, what is her occupation _____

If No, what is her partner's (if any) occupation _____

1.5 Height at booking ☐☐☐ cm

1.6 Weight at booking ☐☐☐.☐ kg

1.7 Smoking status never ☐ gave up prior to pregnancy ☐ current ☐ gave up during pregnancy ☐

Section 2: Previous Obstetric History

2.1 Gravidity

Number of completed pregnancies beyond 24 weeks ☐☐

Number of pregnancies less than 24 weeks ☐☐

If no previous pregnancies, *please go to section 3.*

2.2 Did the woman have any problems in her previous pregnancies?[2]* Yes ☐ No ☐

If Yes, please specify _____

Section 3: Previous Medical History

3.1 Did the woman have any of the following? Yes ☐ No ☐

If Yes, please tick all that apply Hiatus hernia ☐ Known history of aspiration ☐ Known swallowing problems ☐ Gastro-oesophageal reflux disease (GORD) ☐ Epilepsy ☐

3.2 Does the woman have any respiratory illness, recurrent chest infections or other chest complaints? Yes ☐ No ☐

If Yes, please specify _____

3.3 Does the woman have any other pre-existing medical problems[3]* Yes ☐ No ☐

If Yes, please specify _____

*For guidance please see back cover

Section 4: This Pregnancy

4.1 **Final Estimated Date of Delivery (EDD)[4]*** D D / M M / Y Y

4.2 **Was this pregnancy a multiple pregnancy?** Yes ☐ No ☐

If Yes, specify number of fetuses ☐

4.3 **Were there any other problems in this pregnancy?[2]*** Yes ☐ No ☐

If Yes, please specify _____

4.4 **What are the usual hospital guidelines for oral intake during active labour?** *(please tick one for high risk and one for low risk women)*

	High risk	Low risk
Restricted intake (clear fluids only)	☐	☐
Light diet	☐	☐
Other *(please specify)* _____	☐	☐

4.5 **Does the hospital have a fasting policy prior to elective surgery?** Yes ☐ No ☐

If Yes, for how many hours are women recommended to fast prior to surgery? ☐☐

Section 5: Diagnosis and Delivery

Section 5a: Diagnosis of Aspiration

5a.1 **What was the date and time the woman was admitted prior to the aspiration event?** D D / M M / Y Y h h : m m (24hr)

5a.2 **What was the date and time that aspiration was diagnosed?** D D / M M / Y Y h h : m m (24hr)

5a.3 **Where was the woman when the aspiration occurred?** *(tick one only)*

Home / community ☐ Delivery room ☐ Labour ward anaesthetic room ☐

Labour ward theatre ☐ Labour ward recovery area ☐ Labour ward high dependency area ☐

Elsewhere in the hospital ☐ *(please specify)* _____

5a.4 **Which of the following features were noted prior to or immediately following the presumed aspiration event:** *(tick all that apply)*

Vomiting ☐

Gastric contents seen in oropharynx ☐

Gastric contents seen on pillow ☐

Low oxygen saturation ☐

Unprotected airway at induction/intubation for general anaesthesia ☐

Unprotected airway at extubation following general anaesthesia ☐

Unprotected airway while semi-conscious ☐

If ticked, please specify circumstances (e.g. in recovery after anaesthesia, following epileptic or eclamptic fit): _____

5a.5 **Was a chest X-ray done?** Yes ☐ No ☐

If Yes, was consolidation noted? Yes ☐ No ☐

Were any other abnormalities noted? Yes ☐ No ☐

If Yes, please specify _____

*For guidance please see back cover

5a.6 Was any other cause for the symptoms and signs identified? Yes ☐ No ☐

If Yes, please specify _____

5a.7 Did the woman have any oral intake in the 6 hours prior to the aspiration event? Yes ☐ No ☐ Not known ☐

If Yes, please record what was eaten/drunk *(tick one only)*

Food and fluids ☐ Fluids only ☐ Clear fluids only ☐

Was the date and time of the last oral intake known? Yes ☐ No ☐

If Yes, please give date and time of last known oral intake D D / M M / Y Y h h : m m (24hr)

5a.8 Was antacid prophylaxis against aspiration prescribed in the 6 hours prior to aspiration?
(e.g. metoclopramide, H2 antagonist, proton pump inhibitor, sodium citrate) Yes ☐ No ☐

If Yes, please state:

Drug(s) name	Dose	Units	Date and time of administration
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)

5a.9 Did the woman receive any opioids in the 6 hours prior to aspiration?
(e.g. morphine, pethidine) Yes ☐ No ☐

If Yes, please state:

Drug(s) name	Dose	Units	Date and time of administration
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)
			D D / M M / Y Y h h : m m (24hr)

Section 5b: Aspiration Associated with General Anaesthesia

5b.1 Was the aspiration event associated with general anaesthesia? Yes ☐ No ☐

If No, *please go to section 5c.*

If Yes, please continue

5b.2 Did a consultant anaesthetist administer the anaesthetic? Yes ☐ No ☐

If No, what was the grade of the anaesthetist administering the anaesthetic? _____

Was a consultant anaesthetist present? Yes ☐ No ☐

5b.3 Was an airway device in use at the time of aspiration? Yes ☐ No ☐

If Yes, please specify *(tick one only)*

Face mask ☐ Oropharyngeal airway ☐ Classic laryngeal mask airway ☐

Other supraglottic airway device ☐ *(please specify with trade name)* _____

_____

Endotracheal tube with cuff inflated ☐ Endotracheal tube with cuff NOT inflated ☐

Other ☐ *(please specify)* _____

5b.4 Was the anaesthetic associated with the aspiration given for caesarean section? Yes ☐ No ☐

If No, for what procedure was anaesthesia given? _____

5b.5 Were any of the following mechanisms used to reduce the aspiration risk before, during or after anaesthesia Yes ☐ No ☐

If Yes, *tick all that apply*

- Nasogastric or orogastric tube insertion and stomach drainage ☐
- Rapid sequence induction ☐
- Application of cricoid pressure during induction ☐
- Release of cricoid pressure to assist airway insertion ☐
- Extubation in the left lateral position ☐
- Extubation when awake ☐

Section 5c: Management of Aspiration

5c.1 Following aspiration, were any of the following performed? Yes ☐ No ☐

If Yes, *tick all that apply*

Intubation ☐ Bronchoscopy ☐ Cricoid pressure ☐ Oropharyngeal suction ☐

Patient placed in left-lateral, head-down position ☐ Supplemental oxygen ☐

5c.2 Were antibiotics given? Yes ☐ No ☐

If Yes, please state:

Drug(s) name	Dose	Units	Route	Duration *(days)*

5c.3 Were any steroid or bronchodilator drugs given? Yes ☐ No ☐

If Yes, please state:

Drug(s) name	Dose	Units	Route

Section 5d: Delivery

5d.1 Did this woman have a miscarriage? Yes ☐ No ☐

If Yes, please specify date D D / M M / Y Y

5d.2 Did this woman have a termination of pregnancy? Yes ☐ No ☐

If Yes, please specify date D D / M M / Y Y

*For guidance please see back cover

5d.3 Is this woman still undelivered? Yes ☐ No ☐

If Yes, will she be receiving the rest of her antenatal care from your hospital? Yes ☐ No ☐

If No, please indicate the name of the hospital providing future care

_____

Will she be delivered at your hospital? Yes ☐ No ☐

If No, please indicate the name of delivery hospital then, *complete ONLY sections 6a, 7 and 8*

_____

5d.4 Was delivery induced? Yes ☐ No ☐

If Yes, please state indication? _____

5d.5 Did the woman labour? Yes ☐ No ☐

5d.6 Was delivery by caesarean section? Yes ☐ No ☐

If Yes, please state:

Grade of urgency[5]* ☐

Indication for caesarean section: _____

Method of anaesthesia: Regional ☐ General anaesthetic ☐

Section 6: Outcomes
Section 6a: Woman

6a.1 Was the woman admitted to HDU (critical care level 2)? Yes ☐ No ☐

If Yes, please specify:

Duration of stay ☐☐ days

Or Tick if woman is still in HDU (critical care level 2) ☐

Or Tick if woman was transferred to another hospital ☐

6a.2 Was the woman admitted to ITU (critical care level 3)? Yes ☐ No ☐

If Yes, please specify:

Duration of stay ☐☐ days

Or Tick if woman is still in ITU (critical care level 3) ☐

Or Tick if woman was transferred to another hospital ☐

6a.3 Did the woman require mechanical ventilation after the aspiration? Yes ☐ No ☐

6a.4 Did the woman require extracorporeal membrane oxygenation (ECMO)? Yes ☐ No ☐

6a.5 Did the woman have a cardiorespiratory arrest? Yes ☐ No ☐

If Yes, please give date and time of arrest D D / M M / Y Y h h : m m (24hr)

6a.6 Did any other major maternal morbidity occur?[6]* Yes ☐ No ☐

If Yes, please specify _____

6a.7 Was the woman discharged following the admission in which she had the aspiration event? Yes ☐ No ☐

If Yes, please give date of discharge D D / M M / Y Y

6a.8 Did the woman die? Yes ☐ No ☐

If Yes, please specify date and time of death D D / M M / Y Y h h : m m (24hr)

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, did the examination confirm the cause of death? Yes ☐ No ☐ Not known ☐

*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 D D / M M / Y Y h h : m m (24hr)

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 ☐☐☐☐ g

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

6b.5 Was the infant stillborn? Yes ☐ No ☐

If Yes, was this? Ante-partum ☐ Intra-partum ☐

If Yes, *go to section 7*

6b.6 Did the infant require resuscitation at birth? Yes ☐ No ☐

6b.7 5 min Apgar ☐☐

6b.8 Was the infant admitted to the neonatal unit? Yes ☐ No ☐

6b.9 Did any major infant complications occur?[7*] Yes ☐ No ☐ Unknown ☐

If Yes, please specify _____

6b.10 Did this infant die? Yes ☐ No ☐

If Yes, please specify date and time of death D D / M M / Y Y h h : m m (24hr)

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 D D / M M / Y Y

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:

Hospital admissions during the pregnancy, either related to the pregnancy or not related
Thrombotic event (PE/ DVT)
Amniotic fluid embolism
Pre-eclampsia
Eclampsia
3 or more miscarriages
Preterm birth or mid trimester loss
Neonatal death
Stillbirth
Baby with a major congenital abnormality
Small for gestational age (SGA) infant
Large for gestational age (LGA) infant
Infant requiring intensive care
Puerperal psychosis
Placenta praevia
Gestational diabetes
Significant placental abruption
Post-partum haemorrhage requiring transfusion
Surgical procedure in pregnancy
Hyperemesis requiring admission
Dehydration requiring admission
Ovarian hyperstimulation syndrome
Severe infection e.g. pyelonephritis
Pulmonary aspiration
HELLP
Anaphylaxis
Obstetric cholestasis
Placenta accreta/ increta/ percreta

3. Previous or pre-existing maternal medical problems, including:

Cardiac disease (congenital or acquired)
Renal disease
Endocrine disorders e.g. hypo or hyperthyroidism, diabetes
Psychiatric disorders
Haematological disorders e.g. sickle cell disease, diagnosed thrombophilia
Inflammatory disorders e.g. inflammatory bowel disease
Autoimmune diseases
Cancer
HIV
Immunosuppressive disorders

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:

Persistent vegetative state
Cardiac arrest
Cerebrovascular accident
Adult respiratory distress syndrome
Disseminated intravascular coagulopathy
HELLP
Pulmonary oedema
Mendleson's syndrome
Renal failure
Thrombotic event
Septicaemia
Required ventilation

7. Fetal/infant complications, including:

Respiratory distress syndrome
Intraventricular haemorrhage
Necrotising enterocolitis
Neonatal encephalopathy
Chronic lung disease
Severe jaundice requiring phototherapy
Major congenital anomaly
Severe infection e.g. septicaemia, meningitis
Exchange transfusion