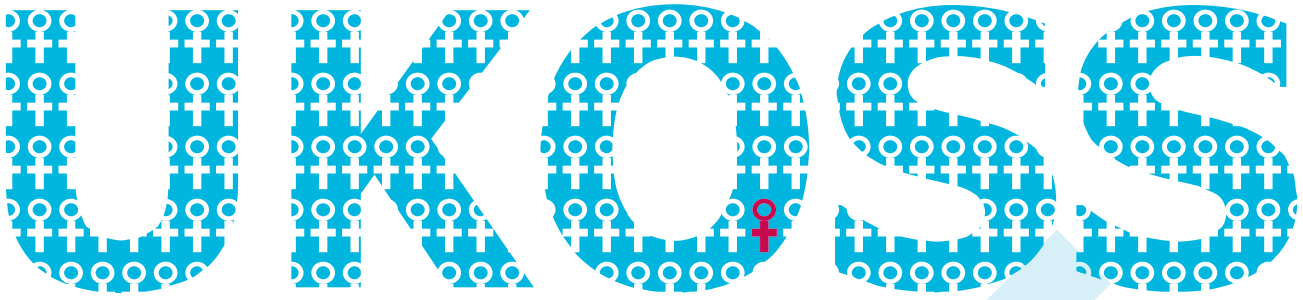


ID Number:



UK Obstetric Surveillance System

## Cardiac Arrest in Pregnancy Study (CAPS) Study 04/10

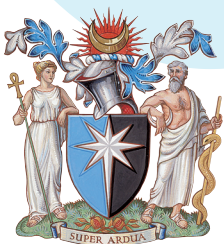
Data Collection Form - CASE

Please report any woman delivering on or after 1st July 2011 and before 1st July 2014.

### Case Definition:

Please report any woman who has received immediate basic life support (BLS) (ie. chest compressions and usually, ventilation breaths) at any time in pregnancy and the immediate postpartum period.

Note that women requiring ventilatory support only, are NOT included.



Royal College of  
Obstetricians and  
Gynaecologists

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:**
- 1.2 Ethnic group:<sup>1\*</sup>** (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 previous pregnancy problems?<sup>2\*</sup>** Yes  No   
If Yes, please specify: \_\_\_\_\_

## Section 3: Previous Medical History

- 3.1 Does the woman have a history of pre-disposing factors for heart disease?<sup>3\*</sup>** Yes  No   
If Yes, please specify: \_\_\_\_\_
- 3.2 Does the woman have a history of a previous cardiac arrest?** Yes  No   
If Yes, please specify date:   /   /    
And record cause if known: \_\_\_\_\_
- 3.3 Does the woman have a history of recreational/illegal drug use?** Yes  No   
If Yes, please specify drug/s used: \_\_\_\_\_  
Record time and date of last known intake   /   /    :     
OR Tick if not known
- 3.4 Does the woman have any other previous or pre-existing medical problems?<sup>4\*</sup>** Yes  No   
If Yes, please specify: \_\_\_\_\_

\*For guidance please see back cover

## Section 4: This Pregnancy

### Section 4a:

4a.1 Final Estimated Date of Delivery (EDD)<sup>5\*</sup>

/   /

4a.2 Was this a multiple pregnancy?

Yes  No

If Yes, please specify number of fetuses:

4a.3 Was pregnancy induced hypertension or pre-eclampsia diagnosed in this pregnancy?

Yes  No

4a.4 Were there any other problems in this pregnancy?

Yes  No

If Yes, please specify: \_\_\_\_\_

4a.5 Was tocolytic therapy used at any point in this pregnancy?

Yes  No

If Yes, please specify agent used and date first used :

Agent

Date

/   /

/   /

### Section 4b: Cardiac Arrest in Pregnancy

4b.1 Where was the woman when she collapsed? \_\_\_\_\_

Was this outside hospital?

Yes  No

If Yes, what time did the paramedic arrive?

:

4b.2 Was the arrest witnessed?

Yes  No

4b.3 Was the woman in established labour (>4cm dilated)?

Yes  No

4b.4 Were there any obvious pre-arrest events?<sup>6\*</sup>

Yes  No  Not known

If Yes, please specify: \_\_\_\_\_

4b.5 What was felt to be the most likely cause of the cardiac arrest?

\_\_\_\_\_

### Section 4c: Resuscitation

4c.1 Date and time cardiac arrest was diagnosed:

/   /   :

4c.2 Please give times of the following or tick if not done:

Time Basic Life Support (cardiac compressions) started

:   Not done

Time Advanced Life Support started (ECG monitor first applied)

:   Not done

Time woman was intubated

:   Not done

4c.3 What type of defibrillator was used?

AED  Manual  Not used

If AED, was rhythm:

Shockable  Non-shockable

If manual, was rhythm identified?

Yes  No

If Yes, please specify the rhythm \_\_\_\_\_

4c.4 Were shocks given?

Yes  No

4c.5 Did the rhythm change during resuscitation?

Yes  No

**4c.6 Were any additional interventions undertaken?\*** Yes  No

If Yes, please specify: \_\_\_\_\_

**4c.7 Were any of the following medications administered?** Yes  No

If Yes, please specify:

- Epinephrine
- Amiodarone
- Atropine
- Calcium
- Sodium Bicarbonate
- Potassium
- Thrombolysis
- Antiarrhythmics (e.g. beta blockers)
- Intralipid

## Section 5: Peri-arrest (peri-mortem) Caesarean Section

Please record the events surrounding Peri-arrest (peri-mortem) Caesarean Section (PMCS) (delivery after 20 weeks' gestation only)

**5.1 Was a peri-arrest (peri-mortem) caesarean section (PMCS) performed?** Yes  No

If No, please state why not, then go to section 6. \_\_\_\_\_

**5.2 Was the PMCS performed at the place of collapse?** Yes  No

If No, where was the PMCS performed? \_\_\_\_\_

Why was the woman moved? \_\_\_\_\_

**5.3 How was aortocaval compression reduced?** Not done  Tilt of pelvis

Manual displacement of uterus  Not documented

**5.4 Who made the decision to perform PMCS?** Specialty \_\_\_\_\_

Grade \_\_\_\_\_

**5.5 What time was the decision to perform PMCS made?**   :

Was this more than 5 minutes after the arrest? Yes  No

If Yes, why was there a delay? \_\_\_\_\_

**5.6 Who performed the operation?** Specialty \_\_\_\_\_

Grade \_\_\_\_\_

**5.7 Was CPR continued throughout the PMCS?** Yes  No

If No, please state why not: \_\_\_\_\_

**5.8 Were aseptic precautions taken?\*** Yes  No

If Yes, please specify: \_\_\_\_\_

**5.9 Is there a scalpel on the arrest trolley for PMCS?** Yes  No

\*For guidance please see back cover

5.10 What surgical incision was used to enter the abdomen? \_\_\_\_\_

5.11 What surgical incision was used to enter the uterus? \_\_\_\_\_

## Section 6: Outcomes

### Section 6a: Woman

6a.1 Was the woman's cardiac output restored? Yes  No

If Yes, what time was cardiac output restored?   :

If No, what time was resuscitation abandoned?   :

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

If Yes, please specify:

Date of admission:   /   /

Duration of stay:   days

OR Tick if woman is still in ITU (level 3) care:

OR Tick if woman was transferred to another hospital:

6a.3 Was the woman admitted to a coronary care unit? Yes  No

If Yes, please specify:

Date of admission:   /   /

Duration of stay:   days

OR Tick if woman is still in coronary care unit:

OR Tick if woman was transferred to another hospital for coronary care:

6a.4 Did any other major maternal morbidity occur?<sup>9\*</sup> Yes  No

If Yes, please specify: \_\_\_\_\_

6a.5 Did the woman die? Yes  No

If No, what was the total duration of hospital stay post arrest?   days

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 performed? Yes  No

If Yes, please specify main findings: \_\_\_\_\_

### Section 6b: Infant 1

**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](http://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:  g

6b.4 Sex of infant: Male  Female  Indeterminate

6b.5 Was the infant stillborn? Yes  No

If Yes, was fetus known to be dead before delivery? Yes  No

If infant was stillborn, please go to section 7.

6b.6 5 min Apgar

6b.7 Were cord gases measured? Yes  No

If Yes, please record cord gas results:

	Arterial	Venous
pH	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
Base Excess	- <input type="text"/> <input type="text"/>	- <input type="text"/> <input type="text"/>

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

If Yes, please give duration of stay:  days

6b.9 Did any other major infant complications occur?<sup>10\*</sup> Yes  No

If Yes, please specify: \_\_\_\_\_

6b.10 Did this infant 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) \_\_\_\_\_

### Section 7:

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

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### Section 8:

8.1 Name of person completing the form: \_\_\_\_\_

8.2 Designation: \_\_\_\_\_

8.3 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:

Thrombotic event  
Amniotic fluid embolism  
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

### 3. Other risk factors for heart disease:

Essential hypertension  
Known ischaemic heart disease  
Congenital heart disease  
Previous cardiac surgery  
Previous myocardial infarction  
Cardiomyopathy  
Presence of Permanent Pacemaker  
Known reduction in ventricular function  
Low levels of HDL cholesterol  
High levels of LDL cholesterol  
Cocaine use  
Valvular heart disease  
Vasculitis  
Ischaemic heart disease in first degree relative  
Diabetes  
Bromocriptine/cabergoline use  
Family history of sudden cardiac death  
History of arrhythmia  
Personal or family history of hypertrophic obstructive cardiomyopathy (HOCM)  
Family history of inherited arrhythmia e.g. long QT syndrome  
Marfan syndrome  
Turner's Syndrome

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

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

### 5. Estimated date of delivery (EDD):

Use the best estimate (ultrasound scan or date of last menstrual period) based on a 40 week gestation

### 6. Pre-arrest events (please consider 4Hs, 4Ts and subsequent detail), for example:

Trauma, please specify e.g. RTA, domestic violence, self harm  
Major genital tract bleeding  
Tension pneumothorax  
Anaphylaxis  
Drug administration, please specify e.g. overdose, drug reaction  
Cardiac tamponade  
Eclampsia  
Status epilepticus  
Pulmonary Embolus  
Amniotic Embolus  
Aortic dissection  
Hypovolaemia e.g. Abruption  
Cerebrovascular accident  
Hypoxaemia of any cause e.g. acute severe asthma, infection/ARDS/ failed airway management  
Metabolic e.g. hypo/hyperkalaemia, hypoglycaemia

### 7. Additional interventions at time of cardiac arrest (Treatment of Hs and Ts)

Arterial Blood Gas (ABG)  
Active temperature control  
Pericardiocentesis  
Needle thoracocentesis  
Insertion of formal chest drain  
Pulmonary embolectomy performed

### 8. Aseptic precautions at PMCS

Full surgical scrub  
Sterile gown  
Sterile gloves  
Skin preparation  
Sterile drapes  
Antibiotics

### 9. Major maternal medical complications, including:

Persistent vegetative state  
Repeat cardiac arrest  
Cerebrovascular accident  
Adult respiratory distress syndrome  
Disseminated intravascular coagulopathy  
HELLP

Pulmonary oedema  
Mendelson's syndrome  
Renal failure

Thrombotic event  
Septicaemia

### 10. 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