



UK Obstetric Surveillance System

## High Neuraxial Block Study 02/17 FORM E

Data Collection Form - CASE

Please report any pregnant woman delivering between 01/09/2017 and 31/08/2019

### Case Definition:

Any pregnant woman who develops a high block in association with spinal and/or epidural anaesthesia /analgesia that requires ventilatory support\* and /or cardiopulmonary resuscitation\*\*.

\*Ventilatory support includes the additional use of 'bag/mask' ventilation, or ventilation assisted by the use of a supraglottic airway device or endotracheal tube.

\*\*Cardiopulmonary resuscitation includes the use of basic and advanced life support.

You have been sent High Neuraxial Block Form E

You have been allocated Form E because you answered the email questionnaire 'What was the very last anaesthetic intervention that directly resulted in the high neuraxial block?' as

Single shot spinal/Spinal component of CSE

**If this is NOT correct DO NOT complete this form.**

Please contact the UKOSS Office at [ukoss@npeu.ox.ac.uk](mailto:ukoss@npeu.ox.ac.uk) as you will require a different form.



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 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 10.
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 10.**
9. If you encounter any problems with completing the form please contact the UKOSS Administrator or use the space in section 10 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 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 \_\_\_\_\_
- 1.4 Height at booking    cm
- 1.5 Weight at booking    kg
- 1.6 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 Please indicate whether any of the following were present: (Please tick all that apply)  
Previous spinal surgery  Spinal scoliosis  Spinal kyphosis   
Spinal canal stenosis  Spina bifida  Other   
If Other, please give details \_\_\_\_\_
- 3.2 Did this woman have any other previous or pre-existing medical problems?<sup>3\*</sup> Yes  No   
If Yes, please give details \_\_\_\_\_

\*For guidance please see back cover

## Section 4: This Pregnancy

4.1 Final Estimated Date of Delivery (EDD)<sup>4\*</sup>

/   /

4.2 Was this a multiple pregnancy?

Yes  No

If Yes, specify number of fetuses

4.3 Were there any **other** problems in this pregnancy except for High Neuraxial Block?<sup>2\*</sup>

Yes  No

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

## Section 5:

### Section 5a: Anaesthetic Intervention

5a.1 What was the initial indication for the primary (first) neuraxial procedure? (tick one only)

Labour analgesia  Category 1 Caesarean Section  Category 2 Caesarean Section   
Category 3 Caesarean Section  Category 4 Caesarean Section   
Instrumental Delivery  Retained products  Tear repair  Other

If Other, please give details \_\_\_\_\_

5a.2 When was the primary neuraxial procedure performed?

/   /   :   :    
24hr

5a.3 Was the primary neuraxial procedure an epidural, SSS or CSE?

Epidural  SSS  CSE

If Epidural, please answer Q5a.4 If CSE, please answer Q.5a.5 If SSS, please answer Q.5a.6

5a.4 If Epidural,

- i). How many attempts were there to locate the epidural space (successful and unsuccessful)? Successful  Unsuccessful
- ii). Was loss of resistance determined using saline or air? Saline  Air
- iii). Was there a recognised dural tap with the Tuohy needle? Yes  No

5a.5 If CSE,

- i). How many attempts were there to locate the epidural space (successful and unsuccessful)? Successful  Unsuccessful
- ii). Was loss of resistance determined using saline or air? Saline  Air
- iii). Was there a recognised dural tap with the Tuohy needle? Yes  No
- iv). How many attempts were there to puncture the dura with the spinal needle?

5a.6 If SSS,

- i). How many attempts were there to puncture the dura with the spinal needle?

### Section 5e: High neuraxial block after single shot spinal (SSS) or spinal component of CSE

5e.1 What agent and dose/concentration/volume was given e.g. 2 mls 0.5% L-Bupivacaine? \_\_\_\_\_

5e.2 Was a repeat spinal attempted?

Yes  No

If Yes, what date/time?

/   /   :   :    
24hr

What agent and dose/concentration/volume was given e.g. 2 mls 0.5% L-Bupivacaine \_\_\_\_\_

## Section 6: Diagnosis of High Neuraxial Block

6.1 What was the date and time when symptoms/signs of a high neuraxial block were first detected?   /   /    :   24hr

6.2 What was the date and time when the high neuraxial block was first diagnosed?   /   /    :   24hr

6.3 Where was the woman when the high neuraxial block occurred?  
Labour room  In transit to operating theatre  Operating theatre   
In recovery  Other   
If Other, please give details \_\_\_\_\_

6.4 What was the first symptom that suggested the diagnosis of a high neuraxial block? (Please tick one only)  
Anxiety  Nausea  Vomiting  Increased lower limb motor block   
Arm dysaesthesia / paraesthesia / paralysis  Hand dysaesthesia / paraesthesia / paralysis   
Shortness of breath  Difficulty speaking  Difficulty coughing   
Decreased conscious level  Loss of consciousness  Other   
If Other, please give details \_\_\_\_\_

6.5 What other symptoms subsequently occurred that suggested the diagnosis of a high neuraxial block? (Please tick all that apply)  
Anxiety  Nausea  Vomiting  Increased lower limb motor block   
Arm dysaesthesia / paraesthesia / paralysis  Hand dysaesthesia / paraesthesia / paralysis   
Shortness of breath  Difficulty speaking  Difficulty coughing   
Decreased conscious level  Loss of consciousness  Other   
If Other, please give details \_\_\_\_\_

6.6 What was the first sign that suggested the diagnosis of a high neuraxial block? (Please tick one only)  
Hypotension  Tachycardia  Bradycardia  Decreasing oxygen saturations   
Cranial nerve involvement  Fetal heart rate changes  Other   
If Other, please give details \_\_\_\_\_

6.7 What other signs subsequently occurred that suggested the diagnosis of a high neuraxial block? (Please tick all that apply)  
Hypotension  Tachycardia  Bradycardia  Decreasing oxygen saturations   
Cranial nerve involvement  Fetal heart rate changes  Other   
If Other, please give details \_\_\_\_\_

6.8 Did the woman have a respiratory arrest? Yes  No   
If Yes, please state date and time   /   /    :   24hr

6.9 Did the woman have a cardiorespiratory arrest? Yes  No   
If Yes, please state date and time   /   /    :   24hr

i). Were chest compressions started? Yes  No   
If Yes, for how long were they continued? \_\_\_\_\_

ii). What was the original rhythm at arrest?  
Shockable eg VF/ pulseless VT  Non-shockable eg PEA or Asystole  Unknown

- iii). How many shocks were given?
- iv). Was spontaneous circulation restored? Yes  No
- v). How long was the patient in cardiorespiratory arrest \_\_\_\_\_
- vi). What agents were used to provide anaesthesia or avoid awareness?

Name of drug	Date given	Time given	Dose and units	Route
_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>	_____	_____
_____	<input type="text" value="D"/> <input type="text" value="D"/> / <input type="text" value="M"/> <input type="text" value="M"/> / <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> : <input type="text" value="m"/> <input type="text" value="m"/> <small>24hr</small>	_____	_____
_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>	_____	_____

## Section 7: Management of high neuraxial block

### 7.1 What airway support did the woman require?

- Bag-mask-valve ventilation only
- If Yes, for how long was this required? \_\_\_\_\_
- Laryngeal mask airway
- If Yes, for how long was this required? \_\_\_\_\_
- Endotracheal intubation
- If Yes, for how long was this required? \_\_\_\_\_

### 7.2 Please list all drugs given to secure the airway, with doses, in order. Include repeated doses.

Name of drug	Date given	Time given	Dose and units	Route
_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>	_____	_____
_____	<input type="text" value="D"/> <input type="text" value="D"/> / <input type="text" value="M"/> <input type="text" value="M"/> / <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> : <input type="text" value="m"/> <input type="text" value="m"/> <small>24hr</small>	_____	_____
_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>	_____	_____

### 7.3 Were there any difficulties securing the airway? Yes No

If Yes, please give details \_\_\_\_\_

### 7.4 In the immediate management of high neuraxial block what fluids did the woman receive from the time of diagnosis to return of cardiovascular stability?

Fluid	Volume	Rate
_____	_____	_____
_____	_____	_____

### 7.5 Did the woman receive any drugs to treat bradycardia, tachycardia or hypotension? Yes No

If Yes, please list any drugs given

Name of drug	Dose and units	Route	Date given	Time given
_____	_____	_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>
_____	_____	_____	<input type="text" value="D"/> <input type="text" value="D"/> / <input type="text" value="M"/> <input type="text" value="M"/> / <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> : <input type="text" value="m"/> <input type="text" value="m"/> <small>24hr</small>
_____	_____	_____	<input type="text" value="D"/> <input type="text" value="D"/> <input type="text" value="M"/> <input type="text" value="M"/> <input type="text" value="Y"/> <input type="text" value="Y"/>	<input type="text" value="h"/> <input type="text" value="h"/> <input type="text" value="m"/> <input type="text" value="m"/>

## Section 8: Outcomes

### Section 8a: Woman

**8a.1 Was the woman admitted to ITU (critical care level 3)?**

Yes  No

If Yes, please specify:

Duration of stay

days

What was the duration of ventilation (days)?

days

What was the duration of inotropic support (days)?

days

**Is the woman still in ITU (critical care level 3)?**

Yes  No

**Was the woman transferred to another hospital**

Yes  No

**8a.2 Did any other major maternal morbidity occur?<sup>6\*</sup>**

Yes  No

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

**8a.3 Did the woman die?**

Yes  No

If Yes, please specify date of death

/  /

What was the primary cause of death as stated on the death certificate?

(Please state if not known) \_\_\_\_\_

### Section 8b: 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](http://www.npeu.ox.ac.uk/ukoss)

**8b.1 Date and time of delivery**

/  /   :  24hr

**8b.2 Prior to the high neuraxial block what was the intended mode of delivery**

Spontaneous vaginal  Ventouse  Forceps

Pre-labour caesarean section  Caesarean section after onset of labour

**8b.3 Was the delivery expedited because of the high neuraxial block**

Yes  No

If Yes, what was the time from decision to delivery?

:  24hr

Was the delivery carried out to aid maternal resuscitation or to aid fetal resuscitation

Maternal resuscitation  Fetal resuscitation  Both  Unknown

**8b.4 What was the actual mode of delivery?**

Spontaneous vaginal  Ventouse  Forceps

Pre-labour caesarean section  Caesarean section after onset of labour

**8b.5 Where was the baby delivered?**

Delivery room  Theatre  Other

If Other, please give details \_\_\_\_\_

**8b.6 Birthweight**

g

**8b.7 Sex of infant**

Male  Female  Indeterminate

**8b.8 Was the infant stillborn?**

Yes  No

If Yes, was the death ante-partum or intra-partum?

Ante-partum  Intra-partum

**8b.9 Apgar**





## 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. 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

### 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