Severe symptomatic peripartum hyponatraemia
Study 03/19

Data Collection Form - CASE

Please report any woman delivering on or after the 01/04/19 and before 31/03/20

Case Definition:
All pregnant women identified as having:
Symptomatic hyponatraemia (Na < 125mmol/l) in labour or in the immediate 48 hours following delivery where other causes (e.g. sepsis, pre-eclampsia, drug overdose) have been clinically excluded.
Symptoms may include any of the following – disorientation, agitation, seizures, coma and focal neurological deficits.

Instructions
1. Please do not enter any personally identifiable information (e.g. name, address or hospital number) on this form.
2. Fill in the form using the information available in the woman’s case notes.
3. If the woman has received secondary mental health care (prior to or during her current pregnancy) please consult with the woman’s most recent psychiatric team to complete this form. If you are unable to contact a psychiatrist involved in the woman’s care please contact the UKOSS administrator and provide details of the mental health team she was receiving care from.
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 you do not know the answers to some questions, please indicate this in section 7
8. 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.
9. If you do not know the answers to some questions, please indicate this in section 7.
10. If you encounter any problems with completing the form please contact the UKOSS coordinator 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:* (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 What is the woman’s smoking status?
   Never □ Current □ Gave up prior to pregnancy □ 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 other previous pregnancy problems?*
   Yes □ No □
   If Yes, please specify: ______________________________

Section 3: Previous Medical History
3.1 Did the woman have any previous or pre-existing medical problems?*
   Yes □ No □
   If Yes, please give details: ______________________________
3.2 Did the woman receive any medication in the 7 days preceding delivery?
   Yes □ No □
   If Yes, please list any medications received: ______________________________
3.3 Did this woman have diabetes prior to pregnancy?
   Type 1 □ Type 2 □ No □

Section 4: This Pregnancy
4.1 Final Estimated Date of Delivery (EDD):*
   □□/□□/□□
4.2 Was this a multiple pregnancy?
   Yes □ No □
   If Yes, please specify number of fetuses: □□□
4.3 Did this woman have pre-eclampsia?
   Yes □ No □
4.4 Were there any other problems in this pregnancy?*
   Yes □ No □
   If Yes, please specify: ______________________________
Section 5:
Section 5a: Woman

5a.1 Did this woman have a miscarriage?  
Yes ☐  No ☐  
If Yes, please specify date  
__/__/__/____

5a.2 Did this woman have a termination of pregnancy?  
Yes ☐  No ☐  
If Yes, please specify date  
__/__/__/____
If Yes to 5a.1 or 5a.2, please now complete sections 5b, 6a, 7 and 8

5a.3 Was delivery induced?  
Yes ☐  No ☐  
If Yes, please state indication: ________________________________
Was vaginal prostaglandin used?  
Yes ☐  No ☐  
If Yes, please specify dose schedule and type of prostaglandin (in table below)

<table>
<thead>
<tr>
<th>Agent</th>
<th>Dose</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5a.4 Did the woman labour?  
Yes ☐  No ☐  
If Yes, please state date and time of diagnosis of labour  
__/__/__/____:____:____

5a.5 Where was the woman managed in labour? (please tick all that apply)

<table>
<thead>
<tr>
<th>Location</th>
<th>Tick if Yes</th>
<th>Date and time of admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>☐</td>
<td>N/A</td>
</tr>
<tr>
<td>Freestanding midwifery unit</td>
<td>☐</td>
<td><strong>/</strong>/__/<strong><strong>:</strong></strong>:____</td>
</tr>
<tr>
<td>Alongside midwifery unit</td>
<td>☐</td>
<td><strong>/</strong>/__/<strong><strong>:</strong></strong>:____</td>
</tr>
<tr>
<td>Secondary care obstetric unit</td>
<td>☐</td>
<td><strong>/</strong>/__/<strong><strong>:</strong></strong>:____</td>
</tr>
<tr>
<td>Tertiary care obstetric unit</td>
<td>☐</td>
<td><strong>/</strong>/__/<strong><strong>:</strong></strong>:____</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>☐</td>
<td><strong>/</strong>/__/<strong><strong>:</strong></strong>:____</td>
</tr>
</tbody>
</table>

5a.6 Was the birthing pool used in labour?  
Yes ☐  No ☐  
If Yes, how long was the woman in the pool in total? (please tick one)  
<1hr ☐  1-2hrs ☐  2-4hrs ☐  >4hrs ☐

Did the birth occur in water?  
Yes ☐  No ☐

5a.7 Was delivery by caesarean section?  
Yes ☐  No ☐  
If Yes, please state:
Grade of urgency:  
Indication for caesarean section: ________________________________
Method of anaesthesia:  
Regional ☐  General anaesthetic ☐
If No, was the vaginal delivery assisted? Yes ☐ No ☐
If Yes, please state method used Forceps ☐ Ventouse ☐
And method of analgesia / anaesthesia Epidural ☐ Spinal ☐ Local anaesthetic block ☐

5a.8 Were drugs used for 3rd stage? Yes ☐ No ☐
If Yes, please state method used 

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>Time first given</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5a.9 Did the woman receive any oxytocin infusions either before or after delivery? Yes ☐ No ☐
If Yes, please specify volumes below

<table>
<thead>
<tr>
<th>Concentration/dilution</th>
<th>Max ml/hr infusion rate</th>
<th>Start date and time</th>
<th>Stop date and time</th>
<th>Dilution fluid used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5a.10 What was the woman’s estimated total blood loss? [ml]

Section 5b: Fluids received during labour and delivery
5b.1 Did this woman receive other intravenous fluids (not including oxytocin infusion) during labour and delivery, before the diagnosis of hyponatraemia? Yes ☐ No ☐
If Yes, please state type and volume administered before hyponatraemia was diagnosed

<table>
<thead>
<tr>
<th>Type of intravenous fluid</th>
<th>Volume received (ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Was a detailed input/output fluid balance chart kept? Yes ☐ No ☐
5b.2 Did this woman have documented oral fluid intake? Yes ☐ No ☐
If Yes, please specify volume of oral fluid consumed during labour and delivery (mls)

<table>
<thead>
<tr>
<th>Type of oral fluid</th>
<th>Documented prospectively</th>
<th>Estimated retrospectively</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isotonic drinks – specify type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other – specify type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 5c: Hyponatraemia

5c.1 What was the time and date when the hyponatraemia was diagnosed?

5c.2 What clinical features of hyponatraemia did the woman have?

(please tick all that apply and give date and time first noted)

<table>
<thead>
<tr>
<th>Type of oral fluid</th>
<th>Tick if Yes</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confusion/agitation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decreased conscious level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5c.3 What was the lowest serum sodium value recorded with date and time?

5c.4 Did this woman have features of sepsis immediately prior to diagnosis? (please tick all that apply)

Initiation of antibiotics for presumed infection (exclude prophylactic doses)
Pyrexia
Positive cultures
Other
None

Section 5d: Hyponatraemia

5d.1 Please indicate which of the following managements were used: (please tick all that apply)

- No treatment
- Fluid Restriction
- Diuretics – please specify name ________________________________ dose ______________
- Hypertonic saline – please specify percentage ________________ volume ________________
- Other – please specify __________________________________________

5d.2 Please indicate the speed of correction of hyponatraemia by entering date and time of serum sodium results until Na ≥130 mmol/l or 48h after diagnosis whichever comes first (either from laboratory sample or blood gas).

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Serum sodium (mmol/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please continue in Section 7 if necessary
Section 6: Outcomes

Section 6a: Woman

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

6a.2 Was the woman admitted to level 3 critical care (ITU)?
   Yes □ No □
   If Yes, duration of stay: □□□□ days
   OR Tick if woman is still in HTU/ITU: □
   OR Tick if woman was transferred to another hospital: □

6a.3 Did the woman require ventilatory support?
   Yes □ No □
   If Yes, how long for? □□□□ days □□□□ hours

6a.4 Was there any evidence of neurological sequelae (e.g. pontine demyelinosi,
persistent vegetative state) from rapid correction of sodium?
   Yes □ No □
   If Yes, please specify: ___________________________________________________________________

6a.5 Did any other major maternal morbidity occur?
   Yes □ No □
   If Yes, please specify: ___________________________________________________________________

6a.6 What was the woman’s date of discharge?
   □□□□/□□□□/□□□□
   OR Tick if woman still in hospital □

6a.7 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) __________________________________________________________________

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

6b.1 Date and time of delivery: □□□□/□□□□/□□□□:□□□□

6b.2 Mode of delivery: Spontaneous vaginal □ Ventouse □ Forceps □ Vaginal 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, please go to section 7

6b.6 5 min Apgar □

6b.7 Were cord gases taken at delivery?
   Yes □ No □
   If Yes, please state the following cord gas results:

   Venous
   pH □□□□ BE □□□□ Na □□□□

   Arterial
   pH □□□□ BE □□□□ Na □□□□
Section 7: Further information

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

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Section 8: Your details

8.1 Name of UKOSS representative 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.
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
   Neoratal 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 medical complications, including:**

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

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