UKOSS

UK Obstetric Surveillance System

Severe pyelonephritis in pregnancy 03/22

Data Collection Form - CASE

Please report any woman delivering on or after the 01/10/22 and before 30/09/23

Case Definition:

All pregnant women with severe pyelonephritis* requiring hospital admission and IV antibiotics for at least 48 hours.

**Pyelonephritis defined as at least 2 of the following: pyrexia / loin pain / positive urine culture.*

Case ID Number: ☐☐☐☐☐☐

CASE Sample

Royal College of Obstetricians and Gynaecologists

Bringing to life the best in women's health care

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: ______________________________

NPEU

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 for your own reference.
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.

Sample

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 previous completed pregnancies beyond 24 weeks ☐☐

Number of previous pregnancies less than 24 weeks ☐☐

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

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

If Yes, please specify ______

2.3 Did the woman have any previous preterm births or miscarriages after 14 weeks? Yes ☐ No ☐

If Yes, what gestation in weeks did they occur? ______

Section 3:

Section 3a: Previous Medical History

3a.1 Please indicate whether any of the following were present:

- Type 1 Diabetes Mellitus Yes ☐ No ☐
- Type 2 Diabetes Mellitus Yes ☐ No ☐
- Urinary tract abnormality Yes ☐ No ☐

If Yes, please select: Duplex kidney(s) ☐ Pelvic kidney ☐ Horseshoe kidney ☐ Single kidney ☐ Kidney transplant ☐ Other ☐

If Other, please specify ______

- Uterine abnormality Yes ☐ No ☐

If Yes, please select:

Uterine septum ☐ Unicornuate uterus ☐ Uterus didelphys ☐ Other ☐

If Other, please specify ______

- Recurrent UTI Yes ☐ No ☐

(Defined as three or more courses of antibiotics for UTI in the year prior to booking)

- Chronic UTI Yes ☐ No ☐

(Defined as being prescribed long-term courses of antibiotics for UTI prior to booking)

- Immunosuppressive treatment Yes ☐ No ☐

If Yes, please select:

Oral steroids ☐ Biologic therapy i.e. monoclonal antibody treatment ☐ Other ☐

If Other, please specify ______

3a.2 Did the woman have any other pre-existing medical problems[3]* Yes ☐ No ☐

If Yes, please give details ______

Section 3b: Risk factors

3b.1 Did the woman have any previous urological surgery (i.e. surgery on bladder, ureter / kidney)? Yes ☐ No ☐

If Yes, please specify ______

3b.2 Did the woman have any long-term urinary tract catheters at the start of pregnancy? Yes ☐ No ☐

If Yes, please select: Clean intermittent self-catheterisation ☐ Indwelling catheter ☐ Suprapubic catheter ☐ Ureteric stent ☐ Other ☐

If Other, please specify ______

3b.3 Was the woman taking continuous / long-term antibiotics for urinary tract infection prior to pregnancy? Yes ☐ No ☐

Sample

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 problems in this pregnancy?[2*] Yes ☐ No ☐

If Yes, please specify ____________________

4.4 Did the woman have urine sent for culture to screen for bacteriuria at booking? Yes ☐ No ☐

If Yes, please specify

Date sent	Result
D D / M M / Y Y	No growth ☐ Non-significant growth ☐ Mixed growth ☐ Positive ☐ Other ☐ *(please specify)* ____________________

If culture positive, what organism(s) was identified? ____________________

Were antibiotic sensitivities analysed? Yes ☐ No ☐

If Yes, was the organism resistant to any antibiotics? Yes ☐ No ☐

If Yes, state which ____________________

4.5 Did the woman receive any antibiotic treatment for UTI in this pregnancy prior to developing pyelonephritis? Yes ☐ No ☐ Unknown ☐

If Yes, please provide date that it commenced and number of episodes / courses of antibiotics

Date	Number of episodes/courses
D D / M M / Y Y	____________________

4.6 What date was the woman admitted to hospital with pyelonephritis? D D / M M / Y Y

4.7 Which diagnostic criteria did the woman meet for pyelonephritis? *(tick all that apply)*

Pyrexia ☐ Loin Pain ☐ Positive urine culture ☐

4.8 What were the woman's presenting symptoms? *(tick all that apply)*

Fever ☐ Loin pain ☐ Urinary symptoms ☐ Other ☐

If Other, please specify ____________________

4.9 Did the woman have urine sent for microscopy, culture & sensitivity? Yes ☐ No ☐

If Yes, was this prior to the first dose of antibiotics? Yes ☐ No ☐ Not known ☐

If Yes, what was the result?

White cell count ☐☐☐ /μL

Red cell count ☐☐☐ /μL

Epithelial cell count ☐☐☐ /μL

Culture Result: *(please select one)*

No growth ☐ Non-significant growth ☐ Mixed growth ☐ Positive growth ☐ Other ☐

If Other, please specify ____________________

Sample

If growth was seen, were antibiotic sensitivities analysed? Yes ☐ No ☐

If Yes, was the organism resistant to any antibiotics? Yes ☐ No ☐

If Yes, please state which antibiotic: ______________________

4.10 Was the woman treated with IV antibiotics? Yes ☐ No ☐

If Yes, please state which IV antibiotic/s and provide start and end date:

Antibiotic	Start date	End date
____________	DD/MM/YY	DD/MM/YY
____________	DD/MM/YY	DD/MM/YY
____________	DD/MM/YY	DD/MM/YY

4.11 Did the woman switch to oral antibiotics? Yes ☐ No ☐

If Yes, please state which oral antibiotic/s and for how many days it was prescribed

Antibiotic	Number of days
____________	☐☐
____________	☐☐
____________	☐☐

4.12 Did the woman have blood cultures sent? Yes ☐ No ☐

If Yes, was an organism grown? Yes ☐ No ☐

If Yes, what organism(s) were grown? ______________________

4.13 Was septic shock diagnosed? Yes ☐ No ☐

If Yes, what was the date of diagnosis? DD/MM/YY

4.14 Please record the following or tick if not measured during admission for pyelonephritis:

			Not measured
Lowest systolic BP	____________	mmHg	☐
Highest lactate	____________	mmol/L	☐
Highest white cell count	____________		☐
Highest CRP	____________		☐
Highest procalcitonin	____________		☐

4.15 Did the woman have a renal tract ultrasound? Yes ☐ No ☐

If Yes, were there any abnormalities (*please select*):

Hydronephrosis (maximum renal pelvis dilatation) ☐ Duplex kidney ☐ Other ☐ None ☐

If Other, please specify ______________________

Sample

4.16 Did the woman require urological intervention? Yes ☐ No ☐

If Yes, please complete the following

- Ureteric stent Yes ☐ No ☐

  If Yes, date of insertion DD/MM/YY Date of removal DD/MM/YY

  Did it require changing? Yes ☐ No ☐ **If Yes:** how many times? ☐☐

- Percutaneous nephrostomy Yes ☐ No ☐

  If Yes, date of insertion DD/MM/YY Date of removal DD/MM/YY

  Did it require changing? Yes ☐ No ☐ **If Yes:** how many times? ☐☐

- Other (*please state*) ______________________ Yes ☐ No ☐

  If Yes, date of insertion DD/MM/YY Date of removal DD/MM/YY

  Did it require changing? Yes ☐ No ☐ **If Yes:** how many times? ☐☐

4.17 What date was the woman discharged from hospital for pyelonephritis? DD/MM/YY

4.18 Did the woman have a repeat urine culture sent following treatment as a test of cure? Yes ☐ No ☐

Sample

Section 5: Pregnancy outcomes

5.1 Did this woman have a miscarriage? Yes ☐ No ☐

If Yes, please specify date DD/MM/YY

5.2 Did this woman have a termination of pregnancy? Yes ☐ No ☐

If Yes, please specify date DD/MM/YY

If Yes to 5.1 or 5.2, please now complete sections 6a, 7 and 8

5.3 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 name of hospital providing future care

____

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

If No, please indicate name of delivery hospital, then *go to Section 7*

____

5.4 Was delivery induced? Yes ☐ No ☐

If Yes, please state indication ______________________

Was vaginal prostaglandin used? Yes ☐ No ☐

5.5 Did the woman labour?

If Yes: Date and time of rupture of membranes: DD/MM/YY hh:mm (24hr)

If Yes: Date and time of onset of labour: DD/MM/YY hh:mm (24hr)

5.6 **Did the woman have a caesarean birth?** Yes ☐ No ☐

If Yes, please state:

Grade of urgency[5]* ☐

Indication for caesarean section ______________________

Method of anaesthesia: Regional ☐ General anaesthetic ☐

5.7 **Date and time of childbirth** DD/MM/YY hh:mm (24hr)

5.8 **Final mode of birth** Spontaneous vaginal ☐ Ventouse ☐ Lift-out forceps ☐ Rotational forceps ☐ Breech ☐ Pre-labour caesarean section ☐ Caesarean section after onset of labour ☐

Section 6: Outcomes

Section 6a: Woman

6a.1 **Did she require high dependency care?** Yes ☐ No ☐

If Yes, was this:

Care			Date care type commenced
Enhanced care in an obstetric setting, *eg. delivery suite*	Yes ☐	No ☐	DD/MM/YY
General critical care unit – Level 2 critical care	Yes ☐	No ☐	DD/MM/YY
General critical care unit – Level 3 critical care	Yes ☐	No ☐	DD/MM/YY

What date was the woman stepped down to ward level care? DD/MM/YY

6a.2 **Did any other major maternal morbidity occur?**[6]* Yes ☐ No ☐

If Yes, please specify ______________________

6a.3 **Did the woman die?** Yes ☐ No ☐

If Yes, please specify date and time of death DD/MM/YY hh:mm (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 certified cause of death/ diagnosis? Yes ☐ No ☐ Not known ☐

Sample

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 Birthweight ☐☐☐☐ g

6b.2 Sex of infant: Male ☐ Female ☐ Indeterminate ☐

6b.3 Was the infant stillborn? Yes ☐ No ☐

If Yes, *please go to section 7.*

6b.4 5 min Apgar ☐☐

6b.5 Was the infant admitted to the neonatal unit? Yes ☐ No ☐

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

If Yes, please specify ______________________

6b.7 Did this infant die? Yes ☐ No ☐

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

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:

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.

Sample

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 medical complications, including:

Persistent vegetative state
Cardiac arrest
Cerebrovascular accident
Adult respiratory distress syndrome
Disseminated intravascular coagulopathy
HELLP
Pulmonary oedema
Secondary infection e.g.pneumonia
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

Sample