

# British Association of Paediatric Surgeons Congenital Anomalies Surveillance System (BAPS-CASS)

## Exomphalos

### Data Collection Form

Details of treatment up to 28 days following surgery/decision for non-operative treatment

Infants presenting on or after 1st March 2014 and before the 1st March 2015

#### Exclude:

All infants with gastroschisis

#### Case Definition:

Any live-born infant with herniation of abdominal content through the umbilical ring, the contents being covered by a membrane. This membrane may have been ruptured at the time of delivery.

### Instructions

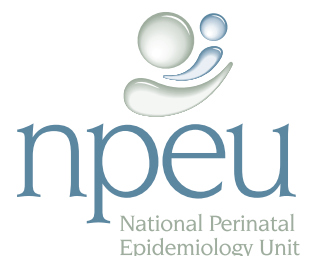
1. Please do not enter any personally identifiable information (e.g. name, address or hospital number) on this form.
2. Please record the ID number from the front of this form against the infant's name on the Clinician's Section of the blue card retained in the BAPS folder.
3. Fill in the form using the information available in the infant's case notes.
4. If codes or examples are required, some lists (not exhaustive) are included on the back page of the form.
5. Tick the boxes as appropriate. If you require any additional space to answer a question please use the space provided in section 8.
6. Please complete all dates in the format DD/MM/YY, and all times using the 24hr clock e.g. 18:37
- 7. If you do not know the answers to some questions, please indicate this in section 8.**
8. If you encounter any problems with completing the form please contact the Study Administrator or use the space in section 8 to describe the problem.

Please return the completed form to:

**BAPS-CASS**  
**National Perinatal Epidemiology Unit**  
**University of Oxford**  
**Old Road Campus**  
**Oxford**  
**OX3 7LF**  
**Fax: 01865 617775**  
**Phone: 01865 289714**



Case reported in: \_\_\_\_\_



## Section 1: Antenatal / Birth Data

- 1.1** What was the mother's year of birth?
- 1.2** Please give the first alphabetical part of mother's postcode  
(e.g. OX for Oxfordshire, EH for Edinburgh, L for Liverpool)
- 1.3** Ethnic group<sup>1\*</sup>
- 1.4** Has the mother ever had a pregnancy where the fetus has been diagnosed with either exomphalos, a structural anomaly, a chromosomal anomaly or malformation syndrome? Yes  No   
If Yes, please specify \_\_\_\_\_
- 1.5** Is there any family history of exomphalos or related conditions including syndromes? Yes  No   
If Yes, please specify \_\_\_\_\_
- 1.6** Gestational age at birth (completed weeks)
- 1.7** Gender male  female  indeterminate
- 1.8** Birthweight      g
- 1.9** What was the planned mode of delivery prior to the onset of labour? Vaginal  Caesarean   
If Caesarean was planned, what was the indication \_\_\_\_\_
- 1.10** What was the mode of delivery? Spontaneous vaginal  Ventouse  Forceps   
Breech  Pre-labour caesarean section  Caesarean section after onset of labour
- 1.11** Was exomphalos suspected antenatally? Yes  No   
If Yes, at what gestational age was it first suspected   weeks
- 1.12** Was the mother offered amniocentesis and/or CVS? Yes  No   
If Yes, did the mother refuse these tests? Yes  No   
If No, please tick all that were performed and give details of results Amniocentesis  CVS   
Results: \_\_\_\_\_
- 1.13** Were any other anomalies detected antenatally? Yes  No   
If Yes, please specify \_\_\_\_\_
- 1.14** Was a syndrome suspected? Yes  No   
If Yes, please specify \_\_\_\_\_
- 1.15** Did the mother receive prenatal surgical counselling? Yes  No

## Section 2: Initial Presentation and Management

- 2.1** Age in days at first presentation to your hospital   days
- 2.2** What was the date of presentation?   /   /
- 2.3** Was the infant transferred from another hospital? Yes  No   
If Yes, please specify where the infant was born? \_\_\_\_\_
- 2.4** Was the defect size at the level of the abdominal wall measured/estimated? Yes  No   
If Yes, what was the diameter?   cm
- 2.5** Was the maximum width of the sac measured/estimated? Yes  No   
If Yes, what was the diameter?   cm

2.6 Was the liver in the sac? Yes  No

2.7 Was the sac ruptured? Yes  No

If Yes, when was the sac known to have ruptured?

Before delivery  During delivery  After delivery  Time not known

2.8 Apart from exomphalos, were there any other anomalies detected on clinical examination? Yes  No

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

2.9 Was the infant commenced on antibiotics in the first 48 hours of life? Yes  No

If Yes, please complete the table below:

| Agent | Route of administration | Indication | Duration (days) |
|-------|-------------------------|------------|-----------------|
|       |                         |            |                 |
|       |                         |            |                 |

2.10 Were any imaging investigations undertaken on the infant? Yes  No

If Yes, please indicate all that apply:

| Investigation   | Date  | Describe any abnormalities detected |
|---|---|-------------------------------------|
| Ultrasound KUB Yes <input type="checkbox"/> No <input type="checkbox"/>   | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| Ultrasound Head Yes <input type="checkbox"/> No <input type="checkbox"/>  | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| Ultrasound Spine Yes <input type="checkbox"/> No <input type="checkbox"/> | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| Echo Yes <input type="checkbox"/> No <input type="checkbox"/>             | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| MRI Head Yes <input type="checkbox"/> No <input type="checkbox"/>         | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| UGI Contrast Yes <input type="checkbox"/> No <input type="checkbox"/>     | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |
| Other Yes <input type="checkbox"/> No <input type="checkbox"/>            | <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                     |

If Other, please specify: \_\_\_\_\_

### Section 3: Management of the Sac

3.1 Did the infant have bowel reduction and cord ligation on unit without attending theatre? Yes  No

If Yes, please go to section 5

If No, please continue

#### Non-Operative Therapy

3.2 Did the infant have non-operative therapy? Yes  No

If No, please go to section 4

3.3 What was the indication? (tick one only)

Consultant's routine practice in viscero-abdominal disproportion

Infant unfit for surgery

Concern about comorbidities

Other

If Other, please specify: \_\_\_\_\_

**3.4 Were any dressings applied to the sac?** Yes  No

If Yes, please give details of any dressing applied: \_\_\_\_\_

What date were dressings stopped altogether?   /   /

**3.5 Were any topical therapies applied to the sac/ skin?** Yes  No

If Yes, please give details of any topical therapies: \_\_\_\_\_

What date were topical therapies stopped altogether?   /   /

**3.6 Were silver levels measured in the infant?** Yes  No

If Yes, what was the highest recorded level   mg/L **OR**   nmol/L

**3.7 Was there any evidence of sac damage or leak during non-operative therapy?** Yes  No

If Yes, did the infant require surgery because of this? Yes  No

**3.8 Was the infant discharged home or transferred before full epithelialisation?** Yes  No

**3.9 How long did the defect take to completely epithelialise?**   weeks

Not epithelialised yet

**3.10 Were elastic compression devices used on the abdomen?** Yes  No

## Section 4: Surgical Management

**4.1 Did the infant have surgery?** Yes  No

If Yes, please specify date:   /   /

If No, please go to Section 5

**4.2 Please specify the sequence of operative procedures, including all those attempted at first closure (tick all that apply)**

| Procedure                            | Attempted                | Successful               | Unsuccessful                                       | Please indicate the order in which procedures were attempted (1,2,3 etc) | Please indicate the date when procedures were attempted |
|--------------------------------------|--------------------------|--------------------------|--|--|---|
| Closure of fascia                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/><br>Reason: _____<br>_____ |  |   |
| Silo Formation                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/><br>Reason: _____<br>_____ |  |   |
| Bridging of fascia with a patch      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/><br>Reason: _____<br>_____ |  |   |
| Skin closure without fascial closure | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/><br>Reason: _____<br>_____ |  |   |

**4.3 Was a silo used?**

Yes  No

If Yes, was the sac removed?

Yes  No

What materials were used to construct the silo? \_\_\_\_\_

Was controlled reduction, (silo tucking) undertaken?

Yes  No

If Yes, were there any adverse sequelae?

Yes  No

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

Was this silo operatively revised at any point?

Yes  No

If Yes, what was the date of the revision?

/   /

What was the indication? \_\_\_\_\_

What materials were used to construct the revised silo? \_\_\_\_\_

What date was the silo removed?

/   /

**4.4 Was a patch used?**

Yes  No

If Yes, what material was used for the patch? \_\_\_\_\_

Was there a plan to remove this at a later date?

Yes  No

Was skin apposed over the patch?

Yes  No

**4.5 Were any additional procedures performed at the time of the initial operation? (tick all that apply)**

Yes  No

Placement of a tunnelled central venous line  Correction of malrotation

Appendicectomy  Other

If Other, please specify: \_\_\_\_\_

**4.6 Did any intra-operative surgical complications occur?**

Yes  No

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

**4.7 Did the infant receive monitoring for abdominal compartment syndrome?**

Yes  No

If Yes, please specify what monitoring method was used \_\_\_\_\_

**4.8 Was vacuum assisted therapy used at any point?**

Yes  No

If Yes, what was the duration?  days

**Section 5: Ongoing Management**

**5.1 Did the infant develop infection or receive intravenous, oral or topical antimicrobials during their stay for prophylaxis or treatment of proven or suspected infection (including antifungals)?**

Yes  No

If Yes, please give details below: (If agent used more than once, please add as separate episode)

| Treatment (T) / Prophylaxis (P) | Agent (s) used | Indication | Duration (days) |
|---------------------------------|----------------|------------|-----------------|
|                                 |                |            |                 |
|                                 |                |            |                 |
|                                 |                |            |                 |
|                                 |                |            |                 |

Continue in section 8 if necessary

**5.2 Was the infant ever colonised or infected by a multi-resistant organism?** Yes  No

If Yes, please give details below:

| Organism | Site of infection/colonisation | Infected | Colonised |
|----------|--------------------------------|----------|-----------|
|          |                                |          |           |
|          |                                |          |           |

**5.3 Was invasive ventilatory support used (excluding CPAP)?** Yes  No

If managed non-operatively – total number of days of ventilation   days

If managed operatively – number of days of ventilation before surgery   days

number of days ventilation after surgery   days

**5.4 How many Peripherally Inserted Central Catheters (PICC lines) did the infant have inserted?**

**5.5 How many Central Venous Lines did the infant have inserted?**

## Section 6: Nutrition at 28 days after surgery or 28 days after decision for non-operative management

**6.1 Has the infant ever received parenteral nutrition?** Yes  No

If Yes, was the infant still receiving parenteral nutrition at 28 days? Yes  No

If No, give total number of days on parenteral nutrition   days

**6.2 What date was the infant first enterally fed (including tube feeding)?**   /   /

**6.3 Is the infant now fully enterally fed (including tube feeding)?** Yes  No

If Yes, what date were full enteral feeds started?   /   /

**6.4 Did the infant ever receive breast milk (including expressed or donor milk)?** Yes  No

If Yes, was this exclusive? Yes  No

**6.5 Did the infant receive any probiotic therapy?** Yes  No

If Yes, please give details below:

| Agent | Route of administration | Duration (hours/days) |
|-------|-------------------------|-----------------------|
|       |                         |                       |
|       |                         |                       |

**6.6 What was the mode of feeding at 28 days or point of discharge (whichever was sooner)?**

Exclusively oral  Nasogastric plus oral  Exclusively Nasogastric

Nasojejunal plus oral  Exclusively Nasojejunal  Other

If Other, please specify: \_\_\_\_\_

## Section 7: Early Morbidity up to 28 days after surgery or up to 28 days after decision for non-operative management

7.1 Were any further surgical procedures required (if not included in table 4.2)? Yes  No

If Yes, please give details below:

| Date of surgery   | Details of further surgical procedure |
|---|---------------------------------------|
| <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                       |
| <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>     |                                       |
| <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> |                                       |

7.2 Did any complications relating to surgical or non-operative therapy occur? Yes  No

If Yes, please tick all that apply:

Abdominal wall hernia (if not intended)

Wound Dehiscence  Abdominal Compartment syndrome

How was Abdominal Compartment syndrome diagnosed? \_\_\_\_\_

Other

If Other, please specify: \_\_\_\_\_

7.3 Did the infant have any other morbidity? Yes  No

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

## Section 8: Outcomes/Other information

8.1 Has the infant been discharged home? Yes  No

If Yes, specify date of discharge   /   /

8.2 What was the weight and head circumference of the infant at 28 days or point of discharge (whichever was sooner)?

Weight     g

Head Circumference   cm

Date   /   /

8.3 Has the infant been discharged to another hospital? Yes  No

If Yes, please give name of hospital \_\_\_\_\_

Name of responsible consultant at transfer hospital \_\_\_\_\_

Date of transfer   /   /

8.4 Was the infant ever diagnosed with a syndrome or a chromosomal anomaly? Yes  No

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

8.5 Did the infant have a malrotation? Yes  No  Not identified through imaging or surgery

If Yes, was this communicated to parents? Yes  No  Unclear

**8.6 Did the infant die?**

Yes  No

If Yes, please give date of death

/    /

Cause of death as stated on the death certificate (please state if not known)

Was a post-mortem performed? Yes  No

Were any additional abnormalities detected? Yes  No

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

**8.7 Please add other relevant information below**

\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_

**Section 9:**

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

Designation \_\_\_\_\_

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