

We are conducting a survey to hear the views and opinions of obstetricians and neonatologists about a possible research study in the future. Around one in four women give birth by Caesarean section and about five in one hundred of these operations are done at the end of labour. Sometimes the baby's head can be deeply wedged in the pelvis making delivery difficult which sometimes results in problems for both the mother and baby. Sometimes the baby can experience skull fractures and hypoxic brain injury whilst stuck and occasionally, babies can die.

There are a variety of ways in which births like this can be made easier. However, at the moment, we do not know which is the best way for both the mother and baby. The research arm of the NHS, called the National Institute of Health Research (NIHR) have asked us to conduct research into this issue.

Before a clinical trial is undertaken, however, it is important for us to understand the views and opinions of health care professionals on the techniques that could be tested in a research study so that any study designed is acceptable to them. We also need to decide which outcomes they feel are most important.

We have already sought the opinions of obstetricians, obstetric anaesthetists, midwives and parents about current practices and opinions on the management of an impacted fetal head. We've also interviewed parents. This data has helped guide us on to this part of our project, where we aim to seek a consensus view on which techniques for the management of an impacted fetal head should be tested in a future clinical trial and which maternal and neonatal outcomes should be measured.

The Delphi survey is comprised of three rounds, each round will take around 10-15 minutes to complete. In the first round you will be asked to score which techniques, maternal and neonatal outcomes should be included in a clinical trial. In the second and third round you will see what scores other respondents gave to the techniques and outcomes, and you will be asked if, now you have seen this information, you want to change your score. This process enables us to find consensus on which techniques should be tested and which are the most important maternal and neonatal outcomes to collect in a future clinical trial.

Thank you for taking the time to read this information and completing the survey. Your help will ensure any study designed to look into this area will have the views and interests of obstetricians and neonatologists in mind.

Question 1

In your opinion, which technique (s) should be tested in a clinical trial for managing an impacted fetal head at second stage caesarean section?

- Fetal pillow (prophylactic i.e. inserted prior to a second stage caesarean section)
- Fetal pillow (treatment i.e. inserted when an impacted fetal head is encountered at a second stage caesarean section)
- Head down tilt of the operating table
- Administration of tocolytic agents to the mother
- Reverse breech extraction (pull) technique (the fetus is delivered feet first)
- Push technique (the head is flexed and pushed upwards through the vagina by an assistant)

Question 2

In your opinion, what are the most important maternal and neonatal outcomes we should measure in a clinical trial testing different techniques for managing an impacted fetal head at second stage caesarean section? Note these are presented in alphabetical (or random) order so you may wish to read through the whole list before answering.

Maternal outcomes

Bladder injury

Bowel injury

Ureteric injury

Extension of uterine incision

Haemorrhage > 1000ml

Caesarean hysterectomy

Sepsis

Need for critical care

Acute adverse mental health outcomes e.g. anxiety, PTSD

Chronic adverse mental health outcome e.g. anxiety, PTSD

Neonatal outcomes

Fractured skull

Fractured clavicle

Fractured long bone

Brachial plexus injury

Intracranial haemorrhage

Moderate Encephalopathy, treated with active cooling, defined by
<https://www.npeu.ox.ac.uk/downloads/files/tobyregister/Register-Clinicians-Handbook1-v4-07-06-10.pdf>

Severe Encephalopathy, treated with active cooling, defined by
<https://www.npeu.ox.ac.uk/downloads/files/tobyregister/Register-Clinicians-Handbook1-v4-07-06-10.pdf>

Active Cooling

Death

Scalp laceration

Blunt abdominal trauma

Seizures treated with anticonvulsant medication

Admission to NICU for > 4 hours