

# **Case story**

## Fetal heart rate monitoring

This case story is based on real events and NHS Resolution is sharing the experience of those involved to help prevent a similar occurrence happening to patients, families and staff. As you read about this incident, please ask yourself:

- Could this happen in my organisation?
- Who could I share this with?
- What can we learn from this?

**Topic:** Management of fetal monitoring

### **Key points:**

- Accurate fetal monitoring and timely escalation is crucial to the safe provision of maternity care.
- Clinical teams should be mindful of situational awareness, and ensure that a colleague is responsible for oversight of the overall clinical picture
- Problems with monitoring the fetal heart rate should always be escalated to a senior member of the multi-disciplinary team using a recognised tool for communicating/handover
- Communication with the mother and birth partner (s) is also an integral part of good clinical care

### **Case story**

A mother was attempting a vaginal birth after caesarean section; there was a prolonged deceleration of the fetal heart rate noted while the mother was being monitored by Cardiotocograph (CTG) on the assessment unit. This recovered, however following review of the mother by the obstetric registrar, a plan was made that if there were further decelerations of the fetal heart rate or meconium stained liquor then a caesarean section would be discussed.

An artificial rupture of membranes was performed on labour ward. There was significant meconium and another deceleration occurred, with quick recovery to the baseline rate. The cervix was 2cm dilated. The mother was reviewed again by the obstetric team and a grade 2 caesarean section was discussed (delivery within 75 minutes) the mother understood and gave her consent.

The CTG was discontinued for transfer to theatre. There were three attempts at siting the spinal anaesthetic, and during this time there was also difficulty in monitoring the fetal heart rate. The fetal heart rate was not monitored appropriately for approximately 15 minutes.

The difficulties in monitoring the fetal heart rate were not recognised by the multi-professional team, due to clinicians being 'task focused' on siting of the spinal

anaesthesia which led to a loss of situational awareness, in addition, concerns regarding fetal monitoring were not escalated.

Following the siting of the spinal anaesthetic, it became apparent that there was a non-recovering fetal bradycardia. The caesarean section was re-categorised to a grade 1 caesarean section and on incision of the mother's abdomen, uterine scar dehiscence noted.

The baby was born in poor condition requiring full resuscitation and transfer to the neonatal unit for therapeutic cooling for 72 hours. The cerebral function monitoring showed an abnormal pattern and baby had a diagnosis of grade 3 hypoxic ischaemic encephalopathy.

## **Considerations for your hospital**

- If you are having difficulty siting a spinal what factors do you need to consider within the process before reattempting? At what point within the process should you escalate?
- Which member of the clinical team has oversight of the overall clinical picture?
- If you are having difficulty in monitoring the fetal heart rate during the insertion of a spinal – what should you do? Who should you tell? Who can support you in this situation?
- If you see a colleague having difficulty or there is a delay in starting or completing a procedure what should you do?
- How do you communicate with families during this process?

## **Suggestions for in-situ simulation:**

This case story can be used for in-situ simulation either in the theatre or delivery suite environment with members of the multi-professional team, and also can be applied to scenarios where an epidural is being inserted.

You can focus on the time critical steps for spinal anaesthetic insertion and fetal monitoring throughout the process. Direct the scenario into a situation where there is a delay in the siting of spinal/epidural and difficulties in monitoring the fetal heart rate or deterioration in the fetal heart rate.

Observe whether a member of the team has oversight of the overall clinical picture. Continue the scenario until a member of the team speaks up about a concern and or a member of the team asks about the fetal heart rate. Observe how this information is communicated.

Observe the communication to the mother and birth partner (s) during the process.

Debrief following the in-situ simulation, empower clinical teams to voice concerns and discuss the barriers to doing so.

## What has happened as a result?

This case was referred to NHS Resolution as part of the Early Notification scheme in light of the severe neonatal brain injury sustained at birth.

The case will be reviewed to consider whether the injury could and should have been avoided. If appropriate, NHS Resolution will work with the family to ensure that they are fully compensated, and that they and the staff involved are fully supported throughout the process.

It is very important to note that no amount of money is comparable the loss of a child or a child living with lifelong neurological injuries. Where poor outcomes occur as a result of deficiencies in care, and families are entitled to be fully compensated, NHS Resolution aims to resolve all such cases fairly and as quickly as possible.

The current compensation cost to the NHS for a baby who has a long term severe brain injury is, on average, £10 million.

The human costs to the baby, families and clinical teams involved as a result of such cases are immeasurable.

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