

# Case story

## Fetal growth restriction



Part of NHS Resolution's  
maternity campaign 2022/25  
**#ImprovingMaternityOutcomes**

# Early Notification

## Case story guidance

### Background

In [Advise, resolve and learn Our strategy to 2025](#), our second strategic priority is to share data and insights as a catalyst for improvement and our third is to collaborate to improve maternity outcomes. Aligned with these aims we have gathered together learning from our Early Notification Scheme and produced a number of case stories to help support learning from harm identified through claims.

### These resources

Our case stories are illustrative and based on recurring themes from real life events. These experiences have been highlighted and shared with you, to help identify potential risks in your clinical area, promote learning and prevent fewer incidents like these occurring in the future.

### How to use the case stories

There are various ways you may use the case stories, from individual self-directed learning to support continuous professional development to using them in a team environment. The idea is that by learning from the experience of others, maternity unit staff will be able to change their approach to care.

As you read or discuss the examples of incidents that we are sharing we ask you to consider the following:

- Could this happen in my organisation?
- What changes within my organisation or team might I consider after reading the material, including individual practice?
- What information should I share with the team?
- How can I share the learning from this case story?
- Who else needs to know?

### Practical applications

1. Consider the key elements of the case story and through reflection apply the learning to influence your practice in the future.
2. Use this case study as a point of discussion at appropriate multi-disciplinary team meetings, safety huddles, and/or human factor's training.
3. Use this case study to create a multi-disciplinary simulation in the clinical area or on mandatory training.
4. Review your claims scorecard to identify whether there are any themes which relate to this case story and identify where improvements could be made.

## Case story

This case story is illustrative based on a range of examples of real events. 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:** Detection of fetal growth restriction (FGR) and holistic risk assessment

### Key points:

- To highlight appropriate management when FGR is suspected or confirmed.
- To consider the importance of a holistic risk assessment at admission in labour and consider the appropriate method of fetal monitoring.
- To highlight the importance of escalation and when to summon help to maintain high standards of care during difficult encounters.

## Maternity story

Mrs. M, a 20-year-old woman, booked at eight weeks in her first pregnancy. She was assessed and found to be suitable for low-risk midwifery-led care. She had her first trimester dating scan and second trimester anomaly scan and no abnormalities were detected. She received regular antenatal appointments in line with national recommendations<sup>(1)</sup>.

The pregnancy continued uneventfully until 36 weeks when she was seen by her community midwife for a routine antenatal check-up. A symphysis fundal height (SFH) measurement suggested slowing of the baby's growth, as the previous measurement at 32 weeks was above the 50<sup>th</sup> centile and the new measurement was below the 50<sup>th</sup> centile.

Mrs. M was referred to the ultrasound department for a fetal growth scan. The scan was performed at 36+3 weeks and the estimated fetal weight was plotted on a customised growth chart just above the 10<sup>th</sup> centile. She was booked for a repeat growth scan to ascertain growth velocity in three weeks at 39+3.

At 39+1 weeks, Mrs. M attended the maternity triage at 21:00 with contractions every three to four minutes. Maternal observations were all within normal range and Mrs. M reported good fetal movements, no vaginal bleeding or leaking per vagina. She had an abdominal examination and it confirmed cephalic presentation, but a

SFH measurement was not performed. She had a vaginal examination, and the cervix was found to be 4cm dilated with intact membranes.

The fetal heart rate was auscultated before and after the examination and found to be within the normal range. As she was on a low-risk pregnancy care pathway she was transferred to labour on the midwifery led unit.

In the first stage of labour an assessment of the fetal heart rate (FHR) was undertaken with intermittent auscultation (IA) every 15 minutes, immediately following a contraction for one minute, and was plotted on the partogram in line with NICE guidance <sup>(2)</sup>.

Four hours later a vaginal examination was performed, and the cervix was 9cm dilated. Mrs. M was getting more distressed and could not settle in any position. She was given gas and air for pain management. One hour later Mrs. M reported an urge to push. She was assisted into a comfortable position and re-examined. The cervix was found to be fully dilated with the presenting part at the level of the ischial spines. The membranes were bulging and spontaneously ruptured during the examination. The liquor was meconium stained. The midwife noted at that point that the FHR was not auscultated for 30 minutes due to difficulties positioning Mrs. M and getting her comfortable. The midwife attempted to auscultate the FHR and heard a late deceleration on IA and the decision was made to transfer Mrs. M to the delivery suite immediately.

A cardiotocograph (CTG) was started and the FHR baseline was 160bpm with repetitive late deep decelerations. The CTG was classified as pathological, and the obstetrician recommended immediate delivery and a written consent was obtained. Mrs. M was transferred to theatre for a trial of assisted vaginal birth. The baby was born via forceps with two pulls and within an appropriate timeframe and immediately taken for resuscitation due to poor respiratory effort. The neonatologist was present at delivery. Thick meconium was observed at birth. The baby's birth weight was below the 3<sup>rd</sup> centile.

At birth the baby was pale and floppy, with no respiratory effort. The Apgar score was recorded as one at one minute and a neonatal emergency call was activated. Full neonatal resuscitation was carried out in accordance with Resuscitation Council guidelines <sup>(3)</sup>. The Apgar score at five minutes of age was five and the baby was intubated at seven minutes due to low oxygen saturation levels and transferred to the neonatal intensive care at 15 minutes of age. Cord blood gases indicated severe metabolic acidosis and the baby remained hypotonic with abnormal movements. A decision for therapeutic cooling was taken. The baby was transferred to a tertiary unit and remained in the neonatal intensive care unit for four days.



The baby required a further five days in the neonatal unit for feeding support. An MRI noted some ischaemic changes, and a diagnosis of hypoxic ischaemic encephalopathy (HIE) was made. The baby was discharged home at 14 days of age. Histological examination of the placenta showed that the placenta was small and had areas of infarction and intervillous fibrinoid deposition, consistent with intrauterine fetal growth restriction.

## Learning Points

This case highlights the importance of:

- Continuous holistic assessment in labour:

SFH measurement at the onset of labour is part of routine assessment and should be recorded in the birth notes. It is unusual for the fundus to drop with head engagement and/or rupture of membranes, and a low fundal height measurement should raise the suspicion of FGR and be an indication for review and consideration for continuous CTG <sup>(5)</sup>. Has Mrs. M had an SFH during her assessment, it would have suggested growth restriction and prompted a reassessment of the most appropriate type of fetal monitoring in labour for her.

- Recognising fetal growth restriction and appropriate care pathway allocation:

The risk of FGR should be reviewed throughout pregnancy and maternity providers should ensure that processes are in place to enable the movement of women between risk pathways dependent on current risk <sup>(4)</sup>. Regular review of antenatal notes, any personalised care plans and antenatal and intrapartum risk factors for fetal hypoxia is essential for appropriate pathway allocation. Although FGR was suspected antenatally and appropriate referrals for scan were made, this was not picked up when Mrs. M presented in labour and hence she was assigned to a low risk pathway.

- Fetal monitoring in the second stage of labour:

There was no fetal heart monitoring for 30 minutes in this case. Prompt recognition of fetal compromise may have allowed Mrs. M's baby to be born sooner and before they sustained a brain injury. When maternal positioning makes fetal monitoring challenging, staff must take steps to avoid any gaps and consider other options of fetal monitoring (e.g. CTG, fetal scalp electrode). Mrs. M could have been helped into an alternative position, offered continuous monitoring or her midwife might have sought additional help from colleagues.

## Considerations for your hospital

- Is there an initial assessment of antenatal risk factors for fetal compromise at the onset of labour to determine whether intermittent auscultation or continuous CTG is offered as the most appropriate method of fetal heart rate monitoring?
- Do the clinicians feel supported to ask for help in difficult situations to assure appropriate fetal monitoring is provided?
- Does the multi-disciplinary teaching programme include discussion of situational awareness, escalation of concerns and holistic assessment?

## What has happened as a result?

This case story is illustrative. If a similar case were to occur in real life, then it would be referred to NHS Resolution's Early Notification Scheme. NHS Resolution's in-house, specialist teams will review all available information about the care received, to decide whether there is any evidence of substandard care which could potentially result in compensation.

The expertise of NHS Resolution is used to proactively assess the legal risk and provide early support to families where liability is established.

NHS Resolution supports an open, transparent discussion between clinicians and families following adverse events<sup>(6)</sup>. The scheme is also designed to improve the experience for NHS staff by time limiting the need for protracted involvement in the legal process and rapidly share learning.

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

The current compensation cost to the NHS for a baby who has long term severe brain injury is on average £13.5 million. The human costs to the babies, families and clinical teams involved are immeasurable.

## Resources:

1. National Institute for Health and Care Excellence Antenatal Care August 2021
2. National Institute for Health and Care Excellence Fetal monitoring in labour December 2022
3. Resuscitation Council UK Newborn resuscitation and support of transition of infants at birth Guidelines May 2021

4. [Saving babies' lives version 3](#) July 2023
5. Perinatal institute Growth Assessment Protocol [GAP protocol](#)
6. NHS Resolution Saying Sorry June 2017 [Saying Sorry](#)



Resolution

8th Floor  
10 South Colonnade  
Canary Wharf  
London, E14 4PU  
Telephone 020 7811 2700  
Fax 020 7821 0029  
Email [nhsr.safety@nhs.net](mailto:nhsr.safety@nhs.net)

Arena Point, Merrion Way  
Leeds LS2 8PA  
Telephone 0113 866 5500

[www.resolution.nhs.uk](http://www.resolution.nhs.uk)



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