



Resolution



Case story

Obstructed labour



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: Obstructed labour and holistic assessment

Key points:

- To highlight warning signs of obstructed labour
- To consider the importance of holistic assessment when choosing methods of emergency delivery
- To consider the rationale for guidance in safe assisted vaginal birth practice

Maternity Story

Miss M, a 25-year-old woman, booked at eight weeks in her first pregnancy. She was assessed and found to be suitable for low-risk care, although her Body Mass Index (BMI) was 31kg/m² (clinically obese). She received antenatal appointments in line with national recommendations¹ and her pregnancy progressed uneventfully. Following discussion Miss M was booked for induction of labour if her pregnancy continued beyond 41 weeks², and she was offered but declined membrane sweeps prior to this date.

At 41+5 weeks, Miss M attended the hospital to start an induction of labour. After wellbeing checks for her and her baby a prostaglandin slow-release vaginal pessary was administered, following which she was discharged home to await events. Miss M reattended 24 hours later and the pessary was removed. An artificial rupture of membranes (ARM) was subsequently performed and Miss M was encouraged to mobilise.

Four hours after the ARM Miss M was contracting 1:10 minutes. A repeat vaginal examination found the cervix to be 2cm dilated, and augmentation with oxytocin was recommended along with continuous fetal monitoring. Miss M opted to have an epidural prior to this.

Miss M's progress in labour was as follows:

Time	Cervical Dilation	Cervical Length	Station	Position	Liquor
03:20	3cm	1cm	-2	Not defined	clear
07:25	5cm	0.5cm	-2	Occiput transverse (OT)	clear

11:27	8cm	0.5cm	-2	OT	pink
15:30	9cm	0.5cm	-2	Right occiput posterior (ROP)	pink

Following the examination at 15:30 an obstetric review was requested, which took place 10 minutes later. The obstetrician categorised the cardiotocograph (CTG) as normal, with contractions 3:10 minutes. The baby's head was 2/5th palpable on abdominal examination. Miss M had an indwelling catheter, and the urine was noted to be clear but concentrated, despite two litres of IV fluids being given. Miss M agreed for the oxytocin to be increased further and a repeat examination was planned for four hours later.

At 19:52 a vaginal examination by the obstetrician found cervical dilation 'anterior lip', station -1, position ROP, liquor pink. The obstetrician manually pushed the cervix behind the presenting part during the examination. They recommended two hours for passive descent and asked that the urinary catheter be replaced as minimal urine was draining. The CTG was categorised as normal, with contractions 4-5:10 minutes.

At 22:00 Miss M began actively pushing, after a vaginal examination to confirm there was no palpable cervix. The findings were unchanged, except that the presenting part was now at the ischial spines. Despite a catheter change, urine output remained minimal so IV fluids were increased.

At 22:30 the midwife requested a CTG review as variable decelerations were present with each contraction and it was hard to assess the baseline fetal heart rate (FHR). While awaiting this, at 22:44, the FHR dropped and failed to recover. The midwife pulled the emergency buzzer at 22:46. An obstetrician attended immediately and found on vaginal examination that the baby remained in ROP position with some descent to below the ischial spines when Miss M pushed. Verbal consent was taken from Miss M to transfer her to theatre for emergency delivery at 22:52. The on-call consultant was asked to attend³.

Miss M was reconnected to the CTG in theatre and the FHR had recovered to baseline. Her epidural was topped up and she was advised to undergo an assisted vaginal birth. The CTG continued to show decelerations with each contraction, and Miss M's contractions were 5:10 minutes. Miss M was moved into lithotomy position at 23:02, after which the CTG was no longer picking up the FHR. At 23:05, once the consultant had arrived, the obstetric registrar attempted to manually rotate the baby, but this failed. At 23:07 a kiwi ventouse cup was applied by the registrar, but the cup detached after two pulls. The consultant decided they would attempt a manual rotation themselves which was also unsuccessful. At 23:13 direct traction forceps were applied by the registrar with the baby in an OP position. After two pulls the registrar was not sure if the baby was descending and requested that the consultant take over once more. After a further two pulls the consultant judged that the baby was not descending and decided to convert to category 1 caesarean birth at 23:20.

The registrar started the caesarean at 23:24. Entry was made more difficult as the bladder was obstructing the view of the uterus. The registrar attempted to deliver the

baby but was unable to get their hand underneath the baby's head. The consultant took over and delivered the baby at 23:29.

At birth baby M was pale and floppy, with no respiratory effort. Baby M received two sets of inflation breaths as the first did not achieve chest rise and then ongoing ventilation breaths as their heart rate was >100bpm but they were not breathing. A 2222 call was placed when baby M was five minutes old for a full neonatal team, and they were intubated at nine minutes of age. Baby M was transferred to the neonatal unit and found to meet criteria for therapeutic cooling. They were subsequently transferred to a regional neonatal intensive care unit and required treatment for seizures. An MRI head identified small subdural haemorrhages and changes consistent with hypoxic ischaemic encephalopathy. Baby M was discharged at ten days of age with a plan to review their development for at least two years.

Learning Points

This case highlights the importance of:

- Recognising warning signs of obstructed labour
 - Slow progress in labour despite adequate contractions, fetal malposition, reduced urine output and/or haematuria and blood-stained liquor can all be signs of obstructed labour, and Miss M had the majority of these signs.
 - Signs of obstructed labour must be considered as part of the decision-making process when considering augmentation of labour or assisted vaginal birth and should at a minimum prompt closer scrutiny of the ongoing progress towards birth.
 - NICE recommend⁴ a repeat examination when there is suspected delay in labour after two hours and in this case waiting four hours contributed to prolongation of her labour, allowing more time for fetal compromise.
- Informed consent and shared decision making
 - Clinicians must discuss all reasonable options with patients⁵.
 - In this case Miss M should have been given the choice of whether to continue labour in the context of slow progress and malposition and, once in theatre, the options of caesarean or assisted vaginal birth and the rationale for any medical recommendation should have been discussed.
- Consistency between national and local guidance
 - Since 2021 NICE has recommended induction of labour for prolonged pregnancy from 41+0 weeks², to reduce the risk of unplanned caesarean birth and adverse neonatal outcomes.
 - In this case local guidance remained to offer induction just prior to 42 weeks gestation.
 - Trusts should have effective processes in place to review local guidelines when there are national updates.
- Loss of situational awareness

- Miss M was experiencing uterine hyperstimulation due to excessive oxytocin augmentation. Recognising this as a cause of fetal compromise and reducing or stopping the oxytocin might have improved the condition of the baby at birth.
- The FHR was not monitored successfully during the attempt at vaginal birth, which prevented fetal wellbeing being considered in the decision about when to abandon vaginal birth.
- Rotational and mid-cavity assisted vaginal births have a higher risk of failure and may exacerbate fetal compromise.
- When there are already signs of significant fetal compromise it is inappropriate to commence a more complex assisted vaginal birth as it may prolong the time to birth and worsen fetal hypoxia.
- Miss M received several litres of IV fluid without clear indication during her labour, but the fluid balance was not monitored, and the risk of hyponatraemia was not considered⁶.
- Recognition of when to abandon assisted vaginal birth
 - National guidance on assisted vaginal birth⁷ highlights the importance of evaluating descent during the birth and prompt escalation from a less experienced to a more experienced operator. It is best practice that the more experienced operator would then undertake any further attempts at vaginal birth. In Miss M's case repeated changes in operator contributed to a prolonged (15 minutes) unsuccessful attempt at assisted vaginal birth, including a total of six pulls across both instruments, without any evidence of descent. Multiple opportunities to re-evaluate the procedure were missed.
 - Not recognising the need to abandon vaginal birth earlier prolonged the duration of hypoxia for Miss M's baby and may have made the caesarean birth more difficult.
 - Individual clinicians can become task focused. In Miss M's case other members of the team in theatre could have highlighted the passage of time and number of pulls performed by the two clinicians to aid the obstetric team in recognising the need to convert to caesarean birth.

Considerations for your hospital

- Is there clear guidance on when a consultant should attend the hospital when on-call? Is this in keeping with RCOG guidance³?
- Is there guidance on fluid balance monitoring and prevention of hyponatraemia?
- Does the multi-disciplinary teaching programme include discussion of situational awareness and holistic assessment, and empower all members of the team to speak up when they have concerns?
- Are local guidelines consistent with national guidelines on the timing of induction of labour²?
- Are clinicians supported to follow the principles of informed consent and shared decision making in practice⁵?

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 events⁸. 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 [Antenatal Care](#)
2. National Institute for Health and Care Excellence Inducing Labour November 2021 [Inducing Labour](#)
3. Royal College of Obstetricians & Gynaecologists Roles and responsibilities of the consultant providing acute care in obstetrics and gynaecology May 2022 [Roles and responsibilities of the consultant](#)
4. National Institute for Health and Care Excellence Intrapartum Care September 2023 [Intrapartum Care](#)
5. General Medical Council Decision making and consent September 2020 [Decision making and consent](#)
6. Demertzidou, E., Zill-E-Huma, R. and Modi, M. (2022), Peripartum hyponatraemia: an overview of physiology, prevention and management. *Obstet Gynecol*, 24: 188-194. <https://doi.org/10.1111/tog.12809>
7. Murphy, DJ, Strachan, BK, Bahl, R, on behalf of the Royal College of Obstetricians Gynaecologists. Assisted Vaginal Birth. *BJOG* 2020; 127: e70–e112 [Assisted Vaginal Birth \(wiley.com\)](#)
8. NHS Resolution Saying Sorry June 2017 [Saying Sorry](#)



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