NHS Resolution

Case story

Good practice: care outside of guidance after previous caesarean

Advise / Resolve / Learn

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 real events that have resulted in litigation. 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: Uterine rupture in an alongside birth centre

Key points:

- To understand the importance of comprehensive counselling about birth options for pregnant women/ pregnant people after a previous caesarean.
- To consider how risks can be mitigated when there is a request for care outside national guidance.
- To consider the intrapartum clinical signs associated with uterine rupture.

Maternity Story

Ms B, a 33 year old in her second pregnancy booked for maternity care at nine weeks gestation. Her first child was born by caesarean section 18 months earlier. In that pregnancy she developed pre-eclampsia at 36 weeks and was offered induction of labour (IOL) at 37 weeks. After several days of attempted IOL and despite regular contractions, her cervix remained 2cm dilated and Ms B was recommended to have a caesarean birth for failed IOL in the context of her pre-eclampsia. The surgery was uncomplicated and her baby was healthy. Ms B was reassured after the birth that she could consider aiming for a vaginal birth in her next pregnancy.

Postnatally, Ms B requested referral to her Maternity Unit's Birth Reflections Clinic. She was seen by a consultant midwife where they discussed the circumstances of her birth and how Ms B felt about what had happened, but at that time she declined to discuss any future pregnancy plans.

At the booking appointment for her second pregnancy, Ms B was recommended to start taking aspirin 150mg at night to prevent pre-eclampsia[1]. She was clear to the midwife that she hoped to give birth without any medical intervention, which she described as a "natural birth".Ms B was informed that as she had given birth by caesarean previously, she would be offered an appointment to discuss her birth options. Ms B was also provided with written information produced by the trust on birth options after caesarean that was based on Royal College of Obstetricians and Gynaecologists (RCOG) information[2].

The majority of Ms B's antenatal care was provided by the same community midwife. At one of her appointments Ms B enquired about having a home birth. Her midwife

advised her this was not usual practice after a caesarean, but suggested she ask about it at the designated appointment to discuss options for birth.

Ms B was seen at 28 weeks by a consultant obstetrician, who had reviewed her previous records beforehand. There was a structured discussion regarding the advantages and disadvantages of vaginal birth (VBAC) and repeat caesarean birth for her, and Ms B was given an opportunity to ask questions. The risks of VBAC included a small possibility of uterine rupture, as well as risks of perineal trauma and harm to the baby (both similar to those for a woman/person giving birth for the first time). A possible increased risk of blood transfusion was also explained. The benefits of VBAC explained included a quicker recovery from birth and reduced risk of temporary neonatal respiratory distress. Ms B was counselled using data from the RCOG that the overall likelihood of VBAC was approximately 72-75% but given her previous non-progressive labour her likelihood of VBAC was around 64%[3].

Ms B shared that she was very committed to planning a VBAC and felt that the physiology of labour would be enhanced by a familiar environment. The obstetrician acknowledged that there were potential benefits from a home birth but explained the national recommendation for continuous monitoring in labour to help recognise signs of uterine rupture rapidly. They suggested the use of telemetry (wireless CTG monitoring) to facilitate remaining mobile during labour in a hospital setting. Ms B did not feel she could plan for birth on the Obstetric Unit in any circumstances and therefore it was suggested she consider labour on the alongside midwifery-led Birth Centre (BC) at the hospital, to reduce transfer times if she experienced complications in labour. As Ms B was requesting care outside current guidance[4] a referral was made to the consultant midwife, who would coordinate her ongoing care including ensuring regular blood pressure checks, given her history of pre-eclampsia. A follow up obstetric appointment was made for shortly after Ms B's estimated date of delivery, as she was undecided about her preferred plan of care if labour did not start spontaneously.

The consultant midwife visited Ms B at home at 33 weeks gestation. Ms B had decided to plan for labour at the unit BC and she agreed a written birth plan with the consultant midwife. The plan included a description of the circumstances that would require transfer to the obstetric unit, as well as other care preferences. Ms B reiterated her understanding that a diagnosis of uterine rupture might be made later with intermittent auscultation (IA), and that if a uterine rupture did occur there was a risk of brain damage or death for her baby, as well as critical illness or death for herself. The consultant midwife requested that both she and Ms B sign the birth plan to confirm their agreement. A copy was filed in the handheld notes, and copies were sent to the consultant obstetrician, community midwife and lead midwife for the BC.

Ms B was seen regularly between 36 and 40 weeks and she made good progress to term. She agreed to a cervical sweep at 40 weeks and confirmed her upcoming obstetric clinic appointment.

At 40+1 weeks gestation Ms B called the maternity advice line reporting contractions and was advised to attend the BC. She arrived at 22:05 with her partner. Contractions were palpated and the fetal heart rate (FHR) was 130bpm. A vaginal examination at 22:15 identified that her cervix was 3cm dilated, station -2,

membranes intact with a cephalic presentation. Her baby was moving well and because there were 3 contractions every 10 minutes, the midwife planned to continue with IA every 15 minutes[5]. As agreed in the birth plan the midwifery manager on call, labour ward coordinator and obstetric registrar were informed of Ms B's admission to the BC.

At 00:30 Ms B requested use of a birthing pool. The midwife reassessed Ms B, the FHR was 125bpm and there was a small blood-stained show on Ms B's pad. At 00:40 Ms B entered the pool.

At 01:20 the FHR on IA was 110bpm. As this was lower than previously, the midwife auscultated after the next three contractions and recorded heart rates of 140, 100 and 135bpm. She requested that Ms B exit the pool and explained the need to transfer to the labour ward for CTG monitoring. Ms B agreed to the transfer after discussion but requested to return to the BC if the CTG was normal. The midwife pressed the call bell and a second midwife attended, who was asked to contact the labour ward coordinator to facilitate urgent transfer. Whilst this call was made the midwife palpated Ms B's abdomen and was concerned that this was now tender to palpation. A repeat vaginal examination at 01:36 found the cervix to be 4cm dilated. The FHR shortly before leaving the BC at 01:42 was 140bpm.

Ms B arrived on the labour ward at 01:45. A CTG was commenced two minutes later and the FHR was 100bpm. There was no recovery to a normal baseline and the midwife pulled the emergency buzzer at 01:48 to summon help. Multiple members of staff including the obstetric registrar and midwife coordinator attended immediately. In view of the uncertain duration of the fetal bradycardia the obstetrician recommended an emergency caesarean birth. A 2222 call was placed by the coordinator to ensure the theatre staff attended the operating theatre immediately. Although Ms B was initially reluctant, she ultimately provided her verbal consent and was promised that the FHR would be rechecked on arrival in theatre.

Ms B arrived in the operating theatre at 01:54. The theatre team and anaesthetist were present and preparing to expedite the birth by category 1 caesarean. The FHR at 01:55 was 90bpm and the obstetrician and anaesthetist agreed general anaesthesia (GA) was appropriate. In anticipation of the baby needing resuscitation the coordinator placed a 2222 call for a full neonatal team. The GA was completed at 02:05 and the operation started immediately. During the caesarean the obstetrician identified, and informed the team, that there was a small uterine rupture. The baby was born at 02:08.

The baby was pale and floppy at birth so the umbilical cord was clamped and cut immediately, and they were moved to the resuscitaire. Blood was taken from the umbilical cord to provide paired cord gases.

The baby was dried and stimulated and five inflation breaths were required, with chest rise seen[6]. The baby's heart rate was less than 60bpm. Ventilation breaths were commenced for 30 seconds, but the baby's heart rate remained below 60bpm. Chest compressions were commenced at a ratio to 3:1. The heart rate was auscultated every 30 seconds and at 4 minutes of life the baby's heart rate had increased to 100bpm and chest compressions were stopped, while continuing

ventilation breaths. One member of team updated the father on the baby's condition. Once on the Neonatal Unit it was determined that criteria A and B[7] had been met for therapeutic cooling, and arrangements were made to transfer the baby to the regional Neonatal Intensive Care Unit where they were therapeutically cooled for 72 hours. Ms B was transferred to the same hospital on Day 1 to enable her to be closer to the baby. An MRI was performed on Day 5, which showed changes associated with an acute profound type of hypoxic ischaemic encephalopathy.

The baby was discharged on day 12 of life with a plan for follow up to at least two years of age to assess their development.

A local rapid review of the case concluded that the care provided to Ms B was commendable, with rapid recognition by the midwife of a deteriorating situation and efficient care by the emergency team on the labour ward and in theatre, minimising the harm to both mother and baby. The midwife was offered an opportunity for debrief and received written positive feedback from the consultant midwife. The obstetrician and coordinator were also informed of the findings of the rapid review. Ms B and her partner were updated that her case would be referred both to the Maternity and Newborn Safety Investigations programme and to the Early Notification Scheme, and subsequently accepted the offer of a full debrief with senior clinicians at the Trust.

Learning Points

This case highlights the importance of…:

- Comprehensive antenatal counselling on options for birth after previous caesarean.
    - This should be presented in a clear and unbiased way, ideally employing different formats and methods. In this case the written information that had been provided in advance helped Ms B when she attended her appointments as she had already had time to consider her choices.
- The value of input from senior clinicians from both Obstetrics and Midwifery when there is request for care outside of guidance.
    - Women and people giving birth should be supported to make informed decisions about their care, with an obligation on maternity services to facilitate their choices and mitigate any perceived additional risks where possible.[8]
    - Counselling must include all information that may be relevant to the pregnant woman/ pregnant person, not only that which the clinician judges to be important.[9]
    - Had Ms B proceeded with her original plan for home birth it is likely emergency birth would have taken substantially more time, and the baby would likely have endured a longer period of hypoxia that might have been fatal, as well as increasing the risk of maternal morbidity or mortality for Ms B.
- The importance of responding without delay to a changing clinical situation, particularly where there are increased risks of complications.

    - In this case, consideration had been given in advance to triggers for escalation and there was a shared understanding that there would need to be a low threshold for transfer to an Obstetric Unit.
- Effective communication during pregnancy and in an emergency situation.
    - Continuity of care antenatally and a named lead for Ms B's care helped her feel empowered to make choices and also helped the staff feel more comfortable and supported when providing care outside of guidance.
    - Pre-emptively informing the coordinator and obstetrician on call of Ms B's labour meant there was a shared mental model when there was an emergency.
    - At several points specific team members were used primarily for communication, including when informing the coordinator of the need for transfer from the BC, and in updating the birth partner regarding the condition of the baby.
    - Early recognition that the baby would likely require resuscitation and communication of the uterine rupture enabled the neonatal team to resuscitate the baby promptly and successfully.
    - Using emergency bleep systems effectively summoned help from a complete team and conveyed an understanding of urgency.

Considerations for your hospital

- Is there written information available for pregnant women/ pregnant people who have previously undergone caesarean birth to help them consider their birth options, as recommended by the RCOG[4]?
- Is counselling after caesarean individualised to take into account relevant risk factors that may affect the likelihood of VBAC such as previous caesarean indication and spontaneous vs induced labour[4]?
- Is there a local pathway for care of women and people giving birth who request care outside of guidelines[5]?
- Do local governance processes have the capability to recognise and feedback to staff on good care, as well as areas for development?

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[10]. 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 Hypertension in Pregnancy: Diagnosis and Management 2019 Hypertension in Pregnancy
2. Royal College of Obstetricians & Gynaecologists Birth options after previous caesarean section July 2016 Birth options after previous caesarean section
3. Royal College of Obstetricians & Gynaecologists Birth After Previous Caesarean Birth (Green-top Guideline No. 45) 2015 Birth After Previous Caesarean Birth
4. Royal College of Midwives Care Outside Guidance March 2022 Care Outside Guidance
5. National Institute for Health and Care Excellence Fetal monitoring in labour December 2022 Fetal monitoring in labour
6. Resuscitation Council UK Newborn resuscitation and support of transition of infants at birth Guidelines May 2021 Newborn resuscitation
7. British Association of Perinatal Medicine Therapeutic Hypothermia for Neonatal Encephalopathy November 2020 Therapeutic Hypothermia for Neonatal Encephalopathy
8. National Institute for Health and Care Excellence Intrapartum Care September 2023 Intrapartum care
9. General Medical Council Decision making and consent November 2020 Decision making and consent
10. NHS Resolution Saying Sorry June 2017 Saying Sorry

NHS
Resolution

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

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

www.resolution.nhs.uk

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