Scottish Parliament Region: Highlands and Islands

Case 200702307: Western Isles NHS Board

Summary of Investigation

Category

Health: Hospital; Maternity ward; nursing care and treatment

Overview

The complainant (Mrs C) raised a number of concerns about the care and treatment provided by Western Isles NHS Board (the Board) to her and her daughter (Baby C) before, during and after labour over 29 and 30 April 2007.

Specific complaints and conclusions

The complaints which have been investigated are that the Board:

(a) did not provide adequate care to Mrs C before and during labour (*upheld*);
(b) did not provide adequate care to Mrs C after delivery (*not upheld*); and
(c) did not provide adequate care to Baby C after delivery (*not upheld*).

Redress and recommendations

The Ombudsman recommends that the Board:

(i) apologise to Mrs C for the failure to provide adequate care to her before and during labour;
(ii) reviews the guidelines for the use of electronic fetal monitoring to ensure that they are appropriate; and
(iii) ensures that clinical staff take note of the findings of this report and make any necessary adjustments to clinical practice accordingly.

The Board have accepted the recommendations and will act on them accordingly.

Main Investigation Report

Introduction

1. On 3 December 2007, the Ombudsman received a complaint from Mrs C about the care and treatment provided to her and her daughter (Baby C) by the Western Isles Hospital, Stornoway (Hospital 1) between 29 and 30 April 2007. Mrs C gave birth to Baby C on 30 April 2009. The medical records showed that Baby C was born in a 'poor condition' and showed signs of having suffered from peripartum asphyxia and was subsequently transferred by air to the Neonatal Unit, at the Princess Royal Maternity Hospital (Hospital 2) in Glasgow on 30 April 2007, to receive specialist treatment. Mrs C complained about the midwifery care provided before, during and after labour. In particular Mrs C was concerned that there had been a delay in the delivery of Baby C and was worried about the function of some medical equipment used to resuscitate Baby C by the midwifery and medical staff.

2. Mrs C complained to Western Isles NHS Board (the Board) on 23 July 2007 and received a response from the Board on 28 September 2007 but remained dissatisfied with their response and complained to the Ombudsman's office.

3. The complaints from Mrs C which I have investigated are that the Board:
(a) did not provide adequate care to Mrs C before and during labour;
(b) did not provide adequate care to Mrs C after delivery; and
(c) did not provide adequate care to Baby C after delivery.

Investigation

4. Investigation of this complaint involved obtaining and reviewing the complaint correspondence of the Board with Mrs C's and Baby C's clinical records alongside Mrs C's correspondence. I also sought the views of a specialist midwifery adviser (Adviser 1), and a specialist medical adviser in obstetrics (Adviser 2) to the Ombudsman who reviewed the files and provided me with their clinical opinions in response to this complaint. I have also discussed aspects of the case with Mrs C.

5. I have not included in this report every detail investigated but I am satisfied that no matter of significance has been overlooked. An explanation of the abbreviations used in this report is contained in Annex 1. A glossary of terms used in this report can be found at Annex 2 and a list of the legislation and

policies considered at Annex 3. Mrs C and the Board were given an opportunity to comment on a draft of this report.

Medical Background

6. This was Mrs C's second pregnancy and in respect of her delivery arrangements she was booked for shared care (midwife/consultant/GP) in September 2006. Mrs C was assessed as being low risk and suitable for midwife led care. Adviser 1 highlighted that there were eight recorded routine antenatal visits where observations were detailed and nothing of any great significance was recorded.

7. At 22:05 on 29 April 2007 Mrs C was admitted to Hospital 1 with history of show (a mucus discharge) and regular pains. She was 40 weeks and three days pregnant. Electronic monitoring of the fetal heart rate (FHR) using a cardiotocograph (CTG) commenced at 22:22 until 23:00 on 29 April 2007. The midwife caring for Mrs C (the Midwife) recorded in the clinical notes that fetal monitoring would continue after Mrs C had mobilised for a short while. Adviser 2 told me that the Royal College of Obstetricians and Gynaecologists clinical guidance, covering the use of electronic fetal monitoring, does not recommend carrying out a CTG on admission to hospital in low risk pregnancies. However, even although Mrs C was assessed to be low risk, a CTG was carried out and it was important to assess whether it was normal. Adviser 1 highlighted that the Midwife's recorded description of the CTG reading was minimal and there was no record of the salient clinical features in the medical notes.

8. At 23:30 Mrs C had spontaneous rupture of the membranes. The Midwife listened to the FHR and recorded it as 168 dropping to 133 beats per minute during contractions. Adviser 2 told me that this may have been a sign of fetal hypoxia as the upper limit of normal for the FHR at term, in the absence of maternal pyrexia (high temperature) or tachycardia (rapid maternal pulse), is 160 beats per minute (Royal College of Obstetricians and Gynaecologists 2001).

9. A second CTG then ran from 23:44 until 00:20 on 30 April 2007. At 23:45 a vaginal examination was carried out where the cervix was recorded as being 4 centimetres dilated. Mrs C's maternal observations were also recorded and her pulse rate was found to be 50 beats per minute. Adviser 1 said that this rate was abnormally low. Mrs C felt light-headed and was offered chocolate. She also requested pain relief.

10. At 00:20 an on-call obstetrician (the Obstetrician) was contacted by telephone and was informed of Mrs C's slow pulse rate and discussed whether diamorphine should be administered. The medical notes document that the Obstetrician advised on sedation. Mrs C was subsequently transferred to the Labour Ward where the FHR was recorded at 00:35 as dropping from 60 beats per minute to 40 and the Obstetrician was contacted again. Adviser 2 told me that the FHR of 60 dropping to 40 beats per minute was abnormal and may have indicated fetal hypoxia. Mrs C was given a vaginal examination by the Midwife and her cervix was found to be 8 centimetre dilated. The medical notes document that diamorphine was not given due to changing circumstances and Mrs C was given two puffs of salbutamol. Adviser 2 indicated that salbutamol relaxes uterine muscle and can be used to lessen the intensity of uterine contractions in cases of fetal distress. In Adviser 2's opinion, salbutamol would not have contributed to the hypoxic condition of Baby C.

11. At 00:40 the Midwife records that Mrs C's cervix was fully dilated and active pushing was encouraged. Mrs C was given oxygen and the FHR was recorded as dropping from 120 to 80 beats per minute with contractions.

12. At 00:45 the fetal heartbeat could not be heard and Mrs C was transferred to theatre. Baby C was then delivered by ventouse extraction at 01:00 and had to be resuscitated thereafter by the on-call consultant paediatrician, assisted by an anaesthetist and nursing staff. The paediatrician recorded that Baby C showed signs consistent with having suffered from peripartum asphyxia - a lack of oxygen before and/or during birth. The evidence for which was a fetal Bradycardia (slow heart rate) of 40 beats per minute, extremely low Apgar scores and the delay in establishing normal respiration.

13. Baby C was thereafter transferred to the Neonatal Unit at Hospital 2 in Glasgow for treatment. Arrangements were made for Mrs C and her husband to travel by air to Hospital 2 after Mrs C had received two postnatal checks. Baby C remained at Hospital 2 until 16 May 2007. Adviser 2 said that subsequent paediatric examinations and serial MRI scans of Baby C have clearly shown cerebral palsy consistent with a lack of oxygen before and/or during delivery.

(a) The Board did not provide adequate care to Mrs C before and during labour

14. Mrs C raised a number of concerns in relation to the care she received between 29 and 30 April 2007. I referred the case to Adviser 1 and Adviser 2 for independent advice. In both advisers' opinion, the fundamental issue they identified concerned the electronic monitoring, CTG of the FHR by the Midwife, which is central to the issue of adequate care having been being provided or otherwise.

15. The most significant aspect of the antenatal care concerned the use of the CTG and the break in recording the FHR. Both advisers agreed that the two CTG's carried out did not show any major pathological features that should have prompted urgent intervention. However, an assessment using the Dr C BRAVADO mnemonic (scoring method), a monitoring scale used to monitor fetal wellbeing during labour, on the first CTG trace indicated that it was non-reassuring (abnormal). Adviser 2 noted that there was no mention of the abnormal trace in the medical notes and is of the opinion that either the Midwife failed to recognise an abnormal trace or recognised it but made a bad planning decision in that Mrs C was allowed to mobilise at that time.

16. In Adviser 1 and Adviser 2's opinion, electronic fetal monitoring should have been continuous in order to determine whether blood sampling was required. Adviser 2 further explained that the decision as to whether or not to perform fetal blood sampling would depend on the appearance of the fetal heart trace over a longer period of time. Had it been determined from the recorded information of the CTG that there was a need for a fetal blood sample then it may have been possible that the blood sample would have prompted early delivery and an improved outcome. Fetal blood monitoring was available within the hospital at the time, but the Board has confirmed it was not undertaken generally at the time of Mrs C's hospital admission.

17. Furthermore, Adviser 2 said the FHR of 168 beats per minute at 23:30 on 29 April 2007 should have prompted the Midwife to resume electronic fetal monitoring as the drop in the heart rate may have been an indication of fetal hypoxia. Additionally, the FHR of 60 dropping to 40 beats per minute at 00:35 was abnormal and may also have indicated fetal hypoxia.

18. The Board stated that the Midwife discontinued the CTG to allow Mrs C to mobilise and go to the toilet. Furthermore, the Board said that the Midwife

intended to recommence fetal monitoring as she was not satisfied with the CTG tracing and wished to continue monitoring when Mrs C returned from the toilet. However, the Midwife's dissatisfaction with the CTG tracing was not documented in the medical notes. Adviser 2 felt the Board has been reluctant to concur there was a possibility the Midwife failed to recognise this as an abnormal CTG.

19. The Board has agreed that electronic fetal monitoring should have been continued as the first CTG was abnormal and Mrs C could have been offered a bedpan as an alternative to mobilising rather than leaving her bed and going to the toilet. The Board further stated that there was a delay in restarting the CTG monitor as Mrs C's bed sheets needed to be replaced after she had spontaneous rupture of membranes at 23:30.

20. The Board has reviewed the care provided to Mrs C and Baby C by carrying out a root cause analysis, a technique of problem solving aimed at eliminating a root cause of a problem. The Board has consequently developed a number of action points and improvements including ongoing training for staff in CTG interpretation and equipment checks.

(a) Conclusion

21. Adviser 2 commented that there was no obvious reason why fetal hypoxia occurred. Adviser 1 and Adviser 2 both concluded that deficiencies in care occurred during the management of Mrs C's labour, specifically that electronic fetal monitoring should have been continued. Continual fetal monitoring on this occasion may have enabled earlier detection of fetal distress and led to earlier delivery and possible avoidance of the development of cerebral palsy. It is not possible to say with certainty that the outcome would have been different if the baby had been delivered sooner. This does not detract from the fact that if the abnormality had been recognised on the first CTG from 22:45 onwards then on this occasion there would have possibly been an earlier opportunity for intervention. Additionally, staff are now considering more general use of fetal blood monitoring which is an improvement.

22. Based on Adviser 1 and Adviser 2's clinical opinion, I am satisfied that there were clear indications of an abnormality and electronic fetal monitoring should have been continued. As the Midwife did not document in the notes that the first CTG was abnormal and an ongoing CTG was not carried out, I uphold this complaint.

(a) Recommendations

23. The Ombudsman recommends that the Board:

(i) apologise to Mrs C for the inadequate care provided to her before and during her labour;

(ii) reviews the guidelines for the use of electronic fetal monitoring to ensure that they are appropriate; and

(iii) ensures that clinical staff take note of the findings of this report and make any necessary adjustments to clinical practice accordingly.

(b) The Board did not provide adequate care to Mrs C after delivery

24. Mrs C expressed concern that she was not offered the services of a midwife when commuting to Glasgow 16 hours after giving birth, especially as she was still bleeding heavily.

25. The Board responded by saying that the Midwife had considered that Mrs C's condition did not require a midwife escort in the flight to Hospital 2 and that it is normal to bleed following delivery which may last for some days afterwards.

26. Adviser 2 noted that two postnatal checks were carried out and observations were within the normal limits before Mrs C travelled by air to Hospital 2, accompanied by her partner (now her husband), in order to be with Baby C.

(b) Conclusion

27. Based on the advice from Adviser 2, I feel the Board's response on this issue was satisfactory. I fully appreciate that this was an extremely distressing time for Mrs C and endured in difficult circumstances, but I do not uphold this complaint.

(c) The Board failed to provide adequate care to Baby C after delivery

28. Mrs C told me that there was a problem with the medical equipment when the medical and nursing staff attempted to resuscitate Baby C. Mrs C said that an anaesthetist had entered the theatre and proceeded to administer oxygen to baby C from a different stand.

29. The Board responded by saying the suction catheter tubing on the theatre resuscitaire was wrongly attached to the oxygen porthole. The Board has

apologised for the error and stated that it had not contributed to an unfavourable outcome for Mrs C or Baby C. As a result of this error, the Board have now introduced a new system of checking and stocking of the resuscitaire both on a daily basis and after each use. Each check will also be recorded.

30. Adviser 2 considered the Board's response in relation to the impact the resuscitaire had on Baby C and concluded it had been satisfactory. The further introduction of a new system of checking and recording to avoid recurrence is a positive improvement made by the Board.

(c) Conclusion

31. Based on the view of Adviser 2 and in view of the Board's subsequent improvements, I do not uphold this complaint.

32. The Board has accepted the recommendations and will act on them accordingly. The Ombudsman asks that the board notify when the recommendations have been implemented.

Annex 1

Explanation of abbreviations used

Mrs C	The complainant
Baby C	Mrs C's daughter
Hospital 1	Western Isles Hospital, Stornoway
Hospital 2	The Princess Royal Maternity Hospital
The Board	Western Isles NHS Board
Adviser 1	Midwifery adviser to the Ombudsman
Adviser 2	Obstetric adviser to the Ombudsman
FHR	Fetal heart rate
CTG	Cardiotocograph
The Midwife	The midwife caring for Mrs C before, during and after labour
The Obstetrician	The consultant obstetrician responsible for Mrs C's care during labour

Annex 2

Glossary of terms

Apgar score	A scoring system used for rapid assessment of new born babies
Bradycardia	Slow heart rate
Cardiotocograph	Electronic method of monitoring the fetal heart rate
Fully dilated	Full dilation of the cervix indicating that vaginal delivery may be possible
Fetal hypoxia	Lack of oxygen to the foetus
History of show	A mucus discharge
MRI scan	A magnetic resonance imaging scan is a radiology technique that uses magnetism, radio waves and a computer to produce images of body structures
Obstetrics	Branch of medicine which deals with the care of women during pregnancy and childbirth
Pathological	Disease related
Peripartum asphyxia	The medical condition resulting from the deprivation of oxygen to a new born infant long enough to cause apparent harm
Resuscitaire	A covered, heated trolley on which a newborn baby may be placed shortly after birth. Trolleys normally have a supply of oxygen, suction and a timer as minimum equipment

Salbutamol	Drug inhalation of which can help relax the uterus
Shared care	Antenatal check-ups carried out by a doctor, midwife and consultant
Spontaneous rupture of the membranes	Disruption of thin layer of tissue
Ventouse delivery	Method of delivering a baby by vacuum extraction using a vacuum pump attached to a suction device which is placed on the baby's head. A vacuum is built up and then traction is applied to assist in delivery of the baby

Annex 3

List of legislation and policies considered

The Royal College of Obstetricians and Gynaecologists - The Use of Electronic Foetal Monitoring RCOG 2001