Scottish Parliament Region: North East Scotland

Case 201201732: Grampian NHS Board

Summary of Investigation

Category

Health: Hospital; Maternity Ward; care and treatment; communication

Overview

The complainant (Mr C) raised a number of concerns with Grampian NHS Board (the Board) that the care given to his wife (Mrs C) and baby daughter (Baby C) at Aberdeen Maternity Hospital (the Hospital) was inadequate. Mrs C was admitted to the Hospital two weeks prior to Baby C's birth by caesarean section. Baby C died shortly after birth, having been born premature and very underweight. Mr C was particularly concerned about the refusal of medical staff to continue resuscitation on Baby C.

It is of concern to me that a number of relevant and important clinical documents, including reference to the fact a post-mortem examination had been conducted, were not provided to my office by the Board until they were asked to highlight any factual errors in a draft version of this report. At this stage of our investigative process, the Board had already been asked, on two occasions, to provide all the relevant information they held. In addition, we had already obtained clinical advice, with my advisers providing comment on the clinical records and information as received. I am disappointed by the Board's decision not to provide such relevant information until this final fact checking stage. I expect all bodies to ensure that their responses to my office's enquiries are thorough and include all information which is of relevance to the complaints under investigation. The Board's omissions in this case undoubtedly hampered our investigations, caused increased stress and distress for the family involved, and are totally unacceptable, as well as unprofessional.

Specific complaints and conclusions

The complaints which have been investigated are that the Board:

(a) failed to adequately manage the later stages of Mrs C's pregnancy including the birth of her baby (*upheld*);

(b) failed to adequately assess the possible success of continued resuscitation (*not upheld*); and

(c) failed to adequately communicate with Mr and Mrs C (*upheld*).

Redress and recommendations

The Ombudsman recommends that the Board:	*Completion date*
(i) consider introducing guidelines for the management of small for gestational age foetuses, with reference to the Royal College of Obstetricians and Gynaecologists guidance of March 2013[1];	20 November 2013
(ii) undertake an assessment to ensure that the Obstetric Team has the correct training and equipment to perform assessments of extremely pre-term infants with abnormal umbilical blood flows, and prepare an action plan to address any shortcomings;	20 November 2013
(iii) provide evidence to demonstrate that following the death of a baby, full clinical examinations and investigations, including a post-mortem, are discussed with and offered to parents;	18 September 2013
(iv) demonstrate that the Board's guidelines about intrauterine death[2], which contain survival figures for babies of extreme prematurity, are referred to as appropriate by maternity and neonatal staff when discussing care with prospective parents;	18 September 2013
(v) remind all of the staff involved in Mrs C's care of the importance of obtaining signed consent forms for caesarean sections;	11 September 2013
(vi) issue a full apology to Mr and Mrs C for all of the failings identified in this report;	4 September 2013
(vii) draw this report to the attention of all neonatal, obstetric and maternity staff at the Hospital; and	4 September 2013
(viii) conduct a significant event analysis of Mrs C and Baby C's care from the point of Mrs C's admission until Baby C's delivery and treatment.	20 November 2013

[1] *Small-for-Gestational-Age Fetus, Investigation and Management: (Green Top 31)*: RCOG [March 2013]
[2] Labour Ward Management Guidelines [2012]

Main Investigation Report

Introduction

1. Mr C's wife, Mrs C, had a complex past obstetric history. During the pregnancy relevant to this report, she was classified as requiring consultant led care and was later diagnosed with gestational diabetes mellitus. She was admitted to Aberdeen Maternity Hospital (the Hospital) on 27 March 2012 when 25 weeks pregnant in order to be monitored. Mrs C underwent a caesarean section on 13 April 2012 under general anaesthetic. Baby C was delivered, weighing 400 grams. She was in very poor condition and a clinical decision was taken to cease active resuscitation at around five minutes of life. Baby C died approximately one hour after birth.

2. On 16 and 25 April 2012 Mr C complained to Grampian NHS Board (the Board) about the care given to Mrs C and Baby C. Mr C advised that he had not wanted a post-mortem carried out on Baby C as he was aware of the cause of death, although he later consented to this. Mr C said that he had not been able to be present during the caesarean section due to Mrs C being under general anaesthetic; he explained that the neonatologist (the Neonatal Consultant) had brought Baby C to him whilst she was still breathing, but had refused to continue resuscitation. Mr C said that the Neonatologist had 'decided to allow [his] child to die', queried her judgement, and whether it was appropriate for a clinician to cease resuscitation when a parent had asked this be continued. He also queried why he and Mrs C had been advised to have Baby C delivered, given the Neonatal Consultant had told him that Baby C's size would make her ultimate survival impossible. Mr C stated that the Neonatal Consultant had told him that her opinion had not been sought prior to Mr and Mrs C being advised to allow delivery. Mr C said he had been made to feel guilty about consenting to the delivery upon finding out the Neonatal Consultant's opinion.

3. Mr C received a response to his complaint from the Board on 27 July 2012. Mr C was not satisfied with the response and complained to my office on 13 August 2012. He said he had been advised that no child under the weight of 650 grams had survived at the Hospital, but that intensive and invasive resuscitation should have been considered for Baby C as there would always be a 'first time' for a smaller baby to survive. He said that cardiotocography monitoring (CTG) had not been used appropriately during Mrs C's admission to the Hospital. He was concerned that Mrs C's medical records had been altered,

as in his opinion the discussions he and Mrs C had had with medical staff may have been different in content from those recorded. Mr C told us that he wanted a full, independent investigation to be carried out, that he wished to obtain proper explanations about his concerns and that he wanted procedures improved at the Hospital to provide a better standard of patient care.

4. The complaints from Mr C which I have investigated are that:

(a) the Board failed to adequately manage the later stages of Mrs C's pregnancy including the birth of her baby;

(b) the Board failed to adequately assess the possible success of continued resuscitation; and

(c) the Board failed to adequately communicate with Mr and Mrs C.

Investigation

5. In investigating this complaint, my complaints reviewer considered all the complaint correspondence between Mr C and the Board. She also reviewed Mrs C's medical records and sought independent clinical advice about the care and treatment Mrs C received from a consultant obstetrician (Adviser 1) and a consultant neonatologist (Adviser 2).

6. I have not included in this report every detail investigated but I am satisfied that no matter of significance has been overlooked. Mr C and the Board were given an opportunity to comment on a draft of this report.

(a) The Board failed to adequately manage the later stages of Mrs C's pregnancy including the birth of her baby

7. Mr C stated that Mrs C had not undergone appropriate monitoring during the latter stages of the pregnancy. He said that he understood that CTG monitoring 'does not always give a reliable trace below 28 weeks for a normally grown child', and queried why, therefore, it was used on a 27 week old baby who was known to be growth restricted. Mr C said that he was subsequently told by the Neonatal Consultant following Baby C's delivery that it would have been wrong for any of the medical team to have suggested to him and Mrs C that a baby born weighing under 500 grams would survive. Given this, Mr C queried why the opinion of a neonatologist had not been sought prior to the decision to recommend a caesarean section as the best chance for Baby C's survival.

8. Mr C also said that he and Mrs C did not want a post-mortem of Baby C to be carried out, 'because the cause of death [was] obvious', but suggested that if the Board wanted to check why Baby C's growth was compromised, they should carry out tests on the placenta and amniotic fluid.

9. The Board responded to Mr C on 27 July 2012. They said that, during her pregnancy, Mrs C was seen on a regular basis by senior obstetric staff due to her gestational diabetes and previous complex history. The Board said that on 27 March 2012, it was explained to Mr and Mrs C that she required continual monitoring for her gestational diabetes and that a continual assessment of the baby's growth was of high importance. On that basis, Mrs C was admitted to the Hospital for monitoring and was seen on a daily basis by senior obstetricians, who 'reviewed all investigations to identify the health of both [Mrs C] and [Baby C] and amended any treatment if required'. The Board said that, during this period, blood flow through the umbilical cord artery was largely absent, and Baby C was noted not to have grown at all during Mrs C's two week period in the Hospital, with her weight consistently remaining under 500 grams. The Board said that the Senior Neonatal Consultant (the Senior Neonatal Consultant) spoke with Mrs C[3] and explained that, given Baby C's weight, the possibility of survival would be very low and most probably with a very high risk of handicap. The Board said that, at that time, it was considered it would be more appropriate to allow Baby C to attempt to grow in-utero if possible rather than perform immediate delivery, as remaining in-utero at 25 weeks gestation would increase Baby C's subsequent chance of survival.

10. The Board said that on 2 April 2012, a further scan showed that the blood flow in the umbilical cord of Baby C had reversed, a possible sign of poor prognosis. They said that, together, Mr and Mrs C were made aware of the extremely poor chance of Baby C's survival if she required delivery, and that after joint discussion, it was decided to continue with the pregnancy with regular monitoring.

11. The Board went on that the Neonatal Unit had a multi-disciplinary meeting on 4 April 2012, at which it was agreed by all senior members of the Neonatal Unit that on-going monitoring was an acceptable plan.

[3] It was not clear from the Board's response on which date this discussion occurred.

12. On 13 April 2012, following an ultrasound scan, it was explained to Mrs C that given the findings of no umbilical cord blood flow or identifiable growth of Baby C, there was a considerable risk of intrauterine death. Mrs C was advised that Baby C's best chance of survival would be through delivery by caesarean section, although as she remained at a very low weight the chances of her survival were still very slim even if she was delivered. Continuous monitoring of Baby C's heart rate was commenced and revealed changes which suggested that delivery was the best option for survival, although again that this chance was very low.

13. The Board said that this decision was discussed with Mr and Mrs C, and Mrs C decided that she wished to proceed with the caesarean section. As Mrs C was placed under general anaesthetic, Mr C was not able to attend the delivery or witness Baby C's resuscitation. Upon delivery, Baby C had a very low heart rate and showed no respiratory effort. Resuscitation was commenced, however, Baby C's heart rate dropped and her oxygen levels could not be improved. The Board went on to explain the decision to cease resuscitation; this will be considered within complaint (b).

14. The Board said that Mrs C's management had been fully discussed with senior clinicians and midwifery staff. They expressed their sorrow for the loss of Baby C and explained that all those involved did their utmost to increase the chances of her survival.

Advice obtained

15. My complaints reviewer obtained independent clinical advice about the clinical care and management of Mrs C's pregnancy from Advisers 1 and 2. She asked Adviser 1 to consider whether the care provided to Mrs C during the later stages of her pregnancy was appropriate, whether risk factors were identified and monitored, and whether in his opinion the Board could have done any more.

16. Adviser 1 said the obstetric team (the Obstetric Team) at the Hospital recognised this was a high risk pregnancy with a growth restricted foetus. He said the hospitalisation of Mrs C for much of the last two to three weeks of her pregnancy appeared appropriate in this high risk situation. Adviser 1 said Mrs C was regularly reviewed by the Obstetric Team during this time, and in his opinion the management in terms of her own health was satisfactory.

17. However, Adviser 1 said that the main issue during this time period was the standard of fetal assessment carried out by the Obstetric Team, which he felt was below the standard expected of a unit that had subspecialty trained maternal fetal consultants, caring for a high risk pregnancy complicated by a small for gestational age (SFGA) foetus. Adviser 1 explained that a SFGA foetus could indicate that the baby was either genetically programmed to be small, or that something had restricted the foetus's growth potential. This could be caused by uteroplacental insufficiency (poor placental function) or other, rarer, causes. Adviser 1 explained that growth restricted babies carried a higher risk of mortality and morbidity compared with constitutionally small babies.

18. Adviser 1 said there were a number of reasons which caused him to reach the view that fetal assessment was below standard. First, when ultrasound scans were performed, he described the biometric measurements records kept as poor. He explained he would have expected consistent recordings of the three main structures of fetal biometry, these being the head circumference, the abdominal circumference and the femur (thigh bone) length, ideally with a calculation of estimated fetal weight (performed fortnightly with consideration for weekly performance). He said that of the scans available, only some of these measurements were recorded in Mrs C's clinical records, and on an ad-hoc basis.

19. Adviser 1 went on that there did not appear to have been a clear discussion about when the Obstetric Team would go to an 'active monitoring strategy,' although he considered this occurred in practice when Mrs C began to receive antenatal corticosteroids on 27 March 2012. He explained that he would generally not have recommended an active monitoring strategy until the baby reached an estimated fetal weight of 500 grams; given Baby C did not reach this weight, Adviser 1 said he would have revisited a decision about active monitoring from 26 weeks. He also considered that this strategy should have included recording an agreement with the parents that delivery would be advised if the foetus deteriorated.

20. Adviser 1 concluded that in his opinion, conservative management (with agreement with the parents) was the most appropriate choice at the time of Mrs C's admittance on 27 March 2012. He would have reviewed this one to two weeks later, and would have reserved the use of antenatal corticosteroids until he and the parents were in agreement that a deterioration in fetal condition

would trigger delivery in an attempt to 'save' the baby. He said that it appeared that the Obstetric Team's decision to give Mrs C antenatal corticosteroids from 27 March 2012 suggested that they had decided that Baby C may be able to be saved. If that point had indeed been reached, Adviser 1 said he would have expected to have seen an active monitoring strategy in place as described, in order to help time delivery. However, this did not appear to have been discussed or recorded.

21. Adviser 1 also raised concerns about the failure to use more advanced screening techniques in relation to the assessment of the diastolic flow between the foetus and the placenta. Adviser 1 explained this further. He said that the primary screening tool to help define the underlying cause for a SFGA foetus was the umbilical artery Doppler (UAD), which had been used in Mrs C's case. This uses a special form of ultrasound (called Doppler flow), which allows the blood flow in the artery in the umbilical cord (connecting the foetus to the placenta) to be assessed. This in turn can detect whether the fetal heart cycle and placenta are healthy. A normal wave pattern in the UAD would have what is called a 'positive end-diastolic flow' (EDF). When a SFGA foetus which is thought to be growth restricted, the UAD may change.

22. Adviser 1 went on that once the UAD becomes abnormal, there are techniques that may help in timing delivery. These include the Venous Doppler technique, which measures the Doppler blood flow in the ductus venosus (a small vessel in the fetal liver), and the use of a computerised CTG, which assesses fetal heart rate patterns. Adviser 1 said these modalities had been recommended in the most recent clinical guidance;[4] although he recognised these guidelines had not been in place at the time of Mrs C's pregnancy, he said similar strategies had been in place since 2007[5]. However, he said there was no evidence that either of these techniques had been used by the Obstetrics Team in determining when to deliver Baby C. Instead, they had continued to measure the UAD and had used a non-computerised CTG to decide upon delivery. Adviser 1 was critical of this and said he would have expected a large centre such as the Hospital, with subspecialty trained maternal consultants, to have these techniques available. He further explained that if Mrs C had been being treated at a smaller hospital, he would have expected

[4] *Small-for-Gestational-Age Fetus, Investigation and Management: (Green Top 31)*: RCOG [2013]
[5] *Fetal assessment of the patient with medical complications: Maternal Medicine – Medical Problems in Pregnancy:* Greer [2007]

her to be transferred to a larger unit with a team that would have had this equipment available.

23. My complaints reviewer asked Adviser 1 about the decision to offer and perform a caesarean section. Adviser 1 described this decision as 'controversial'. He noted that, on the day of delivery, it was clear from the records that Mr C had concerns with the management plan, and further that it seemed to have been suggested to Mr and Mrs C that a caesarean section was their only hope. He said that, even with the limited fetal measurements recorded, it could have been calculated that Baby C was still below a viable weight at this time. He reiterated that he would not have adopted an active monitoring strategy to time delivery until a baby reached 500 grams. He explained that a computerised CTG should have been used to fully and daily assess the Doppler blood flow in the ductus venosus, and would only have arranged to deliver Baby C if the ductus venosus assessment showed as abnormal. Adviser 1 concluded that Baby C was not adequately assessed at the time of the decision to conduct a caesarean section to determine if delivery was needed, or if prolongation of the pregnancy could be allowed in the hope of achieving greater maturity.

24. Adviser 1 said it appeared that the Obstetric Team did not either have the ultrasound skills to perform the Venous Doppler technique or otherwise did not use them, and that they did not have or use a computerised CTG, that could adequately assess a severely growth restricted baby. He said Mr and Mrs C should have been given two options, upon knowing more results in terms of any detected abnormalities, to either go forward with the delivery or to leave Baby C in-utero. Adviser 1 explained that the expectation in relation to the second option would have been that a stillbirth would occur within the next few hours or days.

25. Adviser 1 also noted that there appeared to be no signed consent form in relation to the caesarean section in the documentation provided by the Board, which he found concerning. This will be considered fully within complaint (c). Furthermore, that it was unclear whether Mr and Mrs C had had the opportunity to discuss the management plan with a neonatologist prior to the delivery; he noted that the Senior Neonatal Consultant had met with Mrs C, but this was two weeks prior to delivery. He would have expected Mr and Mrs C to have had an opportunity to talk with a neonatologist and to find out about the chance of Baby C's survival at 27 weeks. Adviser 1 said there was no record of any

discussion of survival rates, resuscitation (this will be considered within complaint (b)) nor of discussions about problems a baby who survived might experience thereafter. Adviser 1 explained that data on survival rates were available from various studies, and figures should have been referred to in order to give Mr and Mrs C a clearer idea of Baby C's chances of survival. He said that, in his view, the Hospital should have figures, agreed between maternity and neonatal staff, to refer to when talking to prospective parents.

26. In commenting upon a draft of this report, the Board advised they did in fact have such figures[6]. Adviser 1 did not, however, locate any records to indicate these had been referred to during discussions with Mr and Mrs C, and these guidelines had not previously been provided to my office.

27. Adviser 2 also provided comment on this aspect of the care and treatment given to Mrs C and Baby C. She said that the prediction of outcome for babies weighing below 500 grams remained very difficult. She supported Adviser 1's advice in terms of conservative management, explaining active monitoring would not be considered for a baby weighing under 500 grams. She said that, although there was evidence of multi-disciplinary discussion, there was no documentation of discussions with the neonatal team (the Neonatal Team) regarding delivery, which would have been good practice. As per Adviser 1's comment, Adviser 2 also noted that there was no discussion between Mr and Mrs C and the Neonatal Team immediately prior to Baby C's birth, which she described as 'highly unfortunate'. She said there was a significant risk Baby C may not respond to resuscitative efforts, and it would have been good practice to ensure that Mr and Mrs C were aware of these possibilities beforehand (this is considered more fully in complaints (b) and (c)).

28. Adviser 1 said it was important to acknowledge that whatever management the Obstetrics Team put in place, it was still most likely that Baby C would not have survived, given she was severely growth restricted and, despite being 27 weeks in gestation at delivery (a viable gestation period), she still had a pre-viable weight meaning her chances of survival were very low. Adviser 1 did explain that although the final outcome was not likely to have been changed given different management, it was still possible that Baby C may have grown if, for example, she had been delivered at 29 weeks.

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[6] *Labour Ward Management Guidelines* [2009] and [2012], pgs. 42 and 49 respectively

29. Adviser 2 concurred with Adviser 1 in describing the decision to perform a caesarean section as 'controversial'. In her opinion, this emergency intervention would not be promoted in this particular clinical scenario because of the likely outcome for Baby C and the additional risk to Mrs C. With this knowledge, she described some of the decisions around monitoring and delivery as questionable. She described the choice between conservative and active management as 'walking a tightrope' but said that, nevertheless, from the monitoring information available, Baby C's prognosis remained extremely poor whether active intervention or watchful waiting had been continued. She said that, with a birth weight of 400 grams and given the severity of her growth failure, Baby C's survival would have been exceptional, with available research evidence[7] suggesting that even if she had been born in good condition, Baby C's chances of survival were less than ten percent. Adviser 2 said that in her opinion it was highly likely Baby C would have been stillborn if the pregnancy had continued with watchful waiting, or would have died in the neonatal period even if she had been delivered later.

30. In relation to Mr C's position about conducting tests, Adviser 1 first considered the antenatal period, and noted that the option of amniocentesis (testing cells from the amniotic fluid for abnormal chromosome patterns) was discussed with Mr and Mrs C. Adviser 1 noted they had declined this as they would not have wished pregnancy termination if Baby C had a lethal chromosomal problem. Adviser 1 went on that, in his opinion, it was likely that Baby C's growth was restricted by placental insufficiency rather than chromosomal abnormality. He explained it was generally helpful for parents to understand why their baby had been SFGA, in particular if they wished to plan any future pregnancies. Possible investigations to establish the reasons for an early neonatal death or stillbirth included chromosomal analysis (which would involve taking samples from the placenta and Baby C) as well as a conventional post-mortem. Adviser 1 explained it was usual practice in the case of a stillbirth or neonatal death for a hospital to use a checklist to ensure that the appropriate investigations were offered, the correct paperwork issued and the appropriate medical professionals contacted. Adviser 1 said there was no evidence that chromosomal analysis was offered to Mr and Mrs C after Baby C's birth.

[7] Paediatrics: Vermont Oxford Network – *Fetal Infants: Study of 4172 Infants with Birth Weights of 401 – 500 grams* [2004]

31. In commenting on a draft of this report, the Board explained that a checklist had been completed at this time, referring to the 'Intrauterine Death: Routine' form in Mrs C's clinical records and supplying a copy. This form had not, however, been supplied by the Board to my office prior to this.

32. Adviser 2 said she would have expected there to be a full examination of Baby C to document any abnormal or diagnostic features, an offer of post-mortem examination to be made, with the pros and cons of this explained to Mr and Mrs C, that the placenta would be sent for histology and cytogenetics, and that additional investigations be carried out in relation to the possible causes of intrauterine growth restriction. Adviser 2 said there was no evidence of a full clinical examination of Baby C or of any additional investigations being carried out, which was poor practice and represented a missed opportunity to find out if there was any underlying reason for Baby C's poor intrauterine growth. She said although she recognised Mr and Mrs C had declined a post-mortem, there was no evidence to show the pros and cons of conducting one had been explained to or discussed with them.

33. In commenting on a draft of this report, Mr C said he and Mrs C had, in fact, later changed their minds and granted consent for a post-mortem to take place, following discussion with one of the medical team. He commented that he was surprised that this information had not been provided to me by the Board. The Board, in commenting on our draft report, provided a copy of a consent form[8] signed by Mr C as well as the post-mortem report.

(a) Conclusion

34. From the outset I would like to recognise that this was an exceptionally difficult and distressing experience for Mr and Mrs C. I have carefully considered all of the advice given to me about the monitoring of Mrs C and Baby C during the later stages of her pregnancy and during Baby C's birth. It is clear that this was a high risk pregnancy, which the medical team appropriately recognised by admitting Mrs C to the Hospital for monitoring during the last weeks.

35. However, the advice I have received is clear that the monitoring that was carried out thereafter was not of a reasonable standard for properly managing

[8] 'Authorisation for the Hospital Post-Mortem Examination of a Child Under 12 Years of Age', signed by Mr C on 17 April 2012

this critical period. A number of criticisms have been made by my advisers about the decisions taken and how these were informed. These include that full fetal measurements of Baby C were not taken, and that it appeared that an active monitoring strategy had been instigated, although there was no clearly recorded evidence of this and, in any event, this did not appear appropriate given Baby C's low weight. The advisers are clear that conservative management would have been more appropriate in the circumstances.

36. Advanced screening techniques were not used at any time to assess whether delivery was an appropriate option or to determine whether prolongation of the pregnancy could be allowed instead. I note in particular that the advice I received was critical of the fact these techniques were not used at the Hospital. Crucially, this denied Mr and Mrs C a possible opportunity to consider other management options; it is of serious concern to me that the only option seemingly presented to them to secure any chance of Baby C's survival was a caesarean section, which has been described by both advisers as 'controversial'.

37. Another criticism of note is the failure to allow Mr and Mrs C an opportunity to discuss the management plan with the Neonatal Team immediately prior to delivery, which will be considered more fully within complaint (c). In addition, it appeared during our investigation that there had been a failure to offer or carry out a number of investigations following Baby C's death. My advisers were critical of this; however, upon commenting upon a draft of this report, the Board then provided additional documentation to demonstrate that a post-mortem and various tests had, in fact, been carried out. I have already noted my criticism of this within the Overview of this report. It still remains the case, however, that it does not appear that any chromosomal analysis was carried out, which may have given Mr and Mrs C more information about why Baby C had been growth restricted.

38. It is, of course, extremely important to recognise that the outcome for Baby C was highly unlikely to have been any different given she was severely growth restricted. Nevertheless, I am not satisfied that Mrs C's pregnancy was managed adequately in its later stages given the failings and omissions identified. Furthermore, given the decision to perform a caesarean section did not appear to have been taken with all the necessary monitoring having occurred or the appropriate strategy in place, I also reach the view that Baby C's birth was not properly managed. I uphold this complaint. I make the

following recommendations to ensure that the Board have a number of clearly identified areas for improvement to ensure that similar cases in the future will receive a more appropriate standard of care. The general recommendations made at the end of this report also apply to this complaint.

(a) Recommendations

39. I recommend that the Board:	*Completion date*
(i) consider introducing guidelines for the management of small for gestational age foetuses, with reference to the Royal College of Obstetricians and Gynaecologists guidance of March 2013[9];	20 November 2013
(ii) undertake an assessment to ensure that the Obstetric Team has the correct training and equipment to perform assessments of extremely pre-term infants with abnormal umbilical blood flows, and prepare an action plan to address any shortcomings;	20 November 2013
(iii) provide evidence to demonstrate that following the death of a baby, full clinical examinations and investigations, including a post-mortem, are discussed with and offered to parents; and	18 September 2013
(iv) demonstrate that the Board's guidelines about intrauterine death[10], which contain survival figures for babies of extreme prematurity, are referred to as appropriate by maternity and neonatal staff when discussing care with prospective parents;	18 September 2013

(b) The Board failed to adequately assess the possible success of continued resuscitation

40. When Baby C was born, resuscitation was commenced immediately. Mr C explained that, given he was not able to be in the operating theatre and Mrs C remained under general anaesthetic, Baby C had been brought out to him by the Neonatal Consultant. He described that Baby C was still breathing; he said he asked the Neonatal Consultant why she had given up on resuscitation and had decided to allow his child to die. He said further resuscitation was refused

[9] *Small-for-Gestational-Age Fetus, Investigation and Management: (Green Top 31)*: RCOG [March 2013]
[10] Labour Ward Management Guidelines [2012]

and that Baby C died after struggling for life for over an hour. Mr C said that the Neonatal Consultant had told him that, given Baby C's weight, she would not survive. Mr C queried why, in that case, they had been advised delivery was the best chance for Baby C's survival (fully considered in complaint (a)). He queried why resuscitation had been ceased given he had witnessed Baby C gasping; he said he was aware it was possible to resuscitate a person who had stopped breathing completely given timely intervention.

41. In their response, the Board said resuscitation had been commenced in order to attempt to get a response from Baby C. They said, however, Baby C's heart rate dropped and her oxygen levels could not be improved by intensive resuscitation. They said, given her weight and the difficulties to improve her condition despite intensive resuscitation, the decision was made to withdraw care to make Baby C comfortable.

42. The Board said the Neonatal Consultant had come to see Mr C to explain that Baby C was very small and that despite all attempts at resuscitation her heart rate could not be sustained appropriately for life. They said Baby C had been taken to Mr C in order to allow him time with her. They said the final breaths Mr C had witnessed were known as 'terminal gasping'; they said the Neonatal Consultant had not had an opportunity to explain to Mr C that this can occur with premature babies, that it did not change any chance of survival or suggest Baby C would have responded to further resuscitation attempts, and was a natural progression prior to loss of life.

43. My complaints reviewer sought the opinion of Adviser 2 on the decision to cease resuscitation and whether this was reasonable or not in the circumstances. Adviser 2 said that when Baby C was born, she was placed in a bag, which was good practice to maintain body temperature. She was in very poor condition, with no movement or breathing, and a slow heart rate of 60 beats per minute (a normal heart rate is between 60 and 100 beats per minute). Adviser 2 said that mask ventilation was instigated, and the resuscitation performed was concurrent to the relevant guidelines[11]. Baby C's heart rate initially rose to 100 beats per minute, but Adviser 2 explained that this was a poor response to resuscitation. Shortly thereafter, Baby C's heart rate began to fall and her oxygen levels did not normalise. Baby C's weight was taken at this point, and in combination with her poor response to resuscitation,

[11] Resuscitation Council – *Newborn Life Support* [2012] (updated)

this influenced the consultant-led decision by the Neonatal Consultant to discontinue resuscitative efforts. Adviser 2 said that all of the actions described and recorded in the clinical records were consistent with recommended resuscitation principles.

44. Adviser 2 explained that in circumstances such as these, the resuscitation team were bound by the 'best interests' of their patient. She said an appropriately senior team was assembled for the delivery and in a position to assess and evaluate Baby C's response to resuscitation. She said it was important to recognise that Baby C had been born essentially lifeless and with a heart rate which was not sufficient to achieve adequate circulation. Adviser 2 said it was reasonable and appropriate to discontinue resuscitative efforts and offer comfort care in line with the 'no chance' test of the General Medical Council guidelines on withholding and withdrawing life-sustaining care.

45. Adviser 2 said it was very unfortunate that this potential outcome had not been discussed with Mr and Mrs C beforehand (this will be considered more fully in complaint (c)). She said the fact Mr C had, appropriately, not been able to enter the delivery room and that Mrs C remained under general anaesthetic made it very difficult to allow full discussion at the time to take place. She said it would not have been appropriate to continue resuscitation until Mrs C woke up as this could potentially have caused increased distress and discomfort.

46. Adviser 2 said the terminal gasping Mr C witnessed was, as the Board had explained, a normal part of the dying process, as a response to rising carbon dioxide levels. She said this was very common in pre-term babies as their heart rates would often stay audible, if very slow, for a period of time. She said it was not an attempt to breathe and did not mean that Baby C would have survived if further help was offered.

(b) Conclusion

47. In reaching a decision on this complaint, I would again like to acknowledge that this was an acutely distressing experience for Mr and Mrs C. In particular, I recognise that it will have been extremely traumatic for Mr C to have witnessed Baby C in this situation.

48. However, the advice I have received is clear that the actions taken and decisions made by the clinicians involved in the delivery and resuscitation of Baby C were entirely appropriate and in line with good practice. Resuscitation

was commenced, but Baby C was not able to sustain life on her own, and the decision to withdraw treatment and offer comfort care was appropriate in these circumstances. This will have been an extremely difficult situation and decision for all those involved. Whilst I recognise this will not be of comfort to Mr and Mrs C, I find that Baby C's care immediately following her birth was managed properly and in line with relevant guidance. Having regard to all of the evidence and advice available to me, I find that the Board did adequately assess the possible success of continued resuscitation of Baby C, therefore, I do not uphold this complaint.

49. The fact that Mr and Mrs C did not have an opportunity to discuss resuscitation and the possibility of this outcome of the delivery will be considered within complaint (c).

(c) The Board failed to adequately communicate with Mr and Mrs C

50. Mr C was concerned about the standard of communication between him and Mrs C and medical staff during Mrs C's admission. He queried why they had been advised to proceed with a caesarean section given Baby C had such a low chance of survival – Mr C explained that he and Mrs C had been told that a caesarean section was in fact Baby C's best chance of survival, and it was not until after Baby C was born that he was then told by the Neonatal Consultant that in all likelihood Baby C would not survive. Mr C said he subsequently felt guilty about giving consent for the caesarean section to go ahead.

51. In his complaint to my office, Mr C said he was not satisfied with the Board's response to his complaint. He was also concerned that the clinical records may have tried to reflect a different version of events, and was concerned that a suggestion may be made that he and Mrs C were not advised as he had claimed.

52. In their response to Mr C's complaint, the Board said that, when Mrs C was seen by senior obstetricians on a daily basis, 'the poor prognosis of [Baby C's] survival given her poor growth on scan was discussed with [Mrs C]', and that they were 'led to believe that she understood and agreed on the management plans at each stage of discussion'. The Board acknowledged '[we] appreciate that these were not discussed with you [Mr C] at the time'.

53. Referring to Mrs C's discussion with the Senior Neonatal Consultant, the Board said that he had been asked to speak with Mrs C to discuss the

prognosis of any required delivery in the immediate future. As outlined in paragraph 9, the Senior Neonatal Consultant had explained to Mrs C that the chance of Baby C surviving delivery was very low. The Board also said resuscitation had 'briefly' been discussed with Mrs C at that time. The Board went on that, on 2 April 2012, Mr and Mrs C had together been made aware of the extremely poor chance of survival if Baby C was delivered.

54. The Board said that, on the day of delivery, Mr and Mrs C had been spoken with together, and that they had been advised that given changes in Baby C's heart rate, delivery by caesarean section was the best chance of survival, although these chances remained very slim. They said that Mrs C had made the decision to proceed with delivery.

55. The Board concluded that they considered that it had been evidenced that 'staff had done their utmost to … comply with Mrs C's wishes on providing her with information of the clinical situation'.

Advice obtained

56. My complaints reviewer asked both Advisers 1 and 2 to comment on the standard of communication with Mr and Mrs C as far as possible from the evidence available. Adviser 1 said that there was evidence throughout Mrs C's clinical records that there had been discussions regarding Baby C's very poor chance of survival. However, it was not always clear from these entries whether Mr C had been present during these discussions or not. Adviser 1 said, although he recognised this was not always possible, all attempts should be made to involve both prospective parents in discussions. Adviser 2 concurred that there were consistent entries which detailed Baby C's survival chances as 'poor'. In her view, it appeared the majority of discussions had taken place with Mrs C only and agreed with Adviser 1 that, where possible, both parents should be involved in discussions, although she recognised contact could often occur during ward rounds when one partner was an in-patient.

57. As outlined in complaint (a), Adviser 1 did not consider that Mr and Mrs C had been given appropriate options on the day they agreed to a caesarean section. He said the option to conservatively manage the pregnancy did not appear to have been given, and in his opinion correct practice would have been to give both options; to also give consideration to offering a second opinion from

another consultant given Mr C had expressed concerns about the management plan; and to give Mr and Mrs C time alone together to discuss their options.

58. Adviser 2 also noted that the record of discussions that day included the comment 'Husband concerned that [Mrs C] not in 'state of mind' to make the decision'.

59. Adviser 1 said it did not appear that any neonatologist had spoken with Mr C prior to Baby C's birth. He said Mr and Mrs C should have had an opportunity to speak with a neonatologist together on the day delivery was offered, in addition to Mrs C's conversation with the Senior Neonatal Consultant two weeks previously. Adviser 2 agreed with this view, saying such discussion could have outlined clear expectations, and was even more pertinent given Mr C's concerns about Mrs C's state of mind at the time. She described that a pause to allow more considered decision-making around delivery would have been prudent.

60. Adviser 1 also highlighted his concern about there being no signed consent form in relation to the caesarean section; this form would explain to the patient the reasons for a procedure, what would happen, and any potential risks. He did note entries explaining why the procedure would be carried out, and although there was an entry stating Mr and Mrs C had been told it carried 'significant maternal risk', no actual risks were documented as having been explained.

61. Adviser 1 concluded that he found no records of pre-birth discussions with Mr and Mrs C about resuscitation, which he described as 'very disappointing'. He said he would have expected review by a neonatal team prior to delivery to discuss the resuscitation and explain reasons why it may be discontinued. Adviser 2 concluded, as noted at paragraph 26, that the failure to arrange this review was 'highly unfortunate' given the significant risk that Baby C would not respond to resuscitation.

62. Both advisers were of the view that there was no evidence of the allegation that Mrs C's clinical records had been altered in any way. They said that notes were contemporaneous, dated and signed, there were no gaps, and conversations were documented with consistent information. Both said Mr and Mrs C should be reassured the clinical records were accurate. However, please note my comments within the Overview section of this report.

(c) Conclusion

63. This complaint specifically concerns whether Mr and Mrs C were appropriately communicated with during the latter stage of her pregnancy and immediately prior to Baby C's birth. I accept that when a prospective mother has been admitted to hospital, it may not be possible for her partner to be present for all the discussions about her treatment. I would expect, however, for notes to clearly record whether or not a partner was present.

64. I take into account Mr C's position that he and his wife were not advised clearly by the staff at the Hospital about Baby C's chances of survival should Mrs C undergo a caesarean section. I am also particularly concerned to note that it was recorded that Mr C had concerns about the management plan, that he was worried about Mrs C's state of mind in terms of consenting to a caesarean section, but that nothing appeared to be done to address these concerns.

65. Although I accept the evidence that consistent and clear information was given during Mrs C's admission that Baby C's prognosis was very poor, there were clearly identified failings on the day of the delivery in terms of the advice given to proceed to delivery at all and, thereafter, the fact that no neonatologist review or discussion was arranged. I have already detailed my findings on the first of these failings within complaint (a).

66. The failure to involve the Neonatal Team and arrange a discussion prior to Mrs C undergoing surgery was significant. Although Mr and Mrs C had been made aware of Baby C's poor prognosis, they had also been advised that a caesarean section was the 'best' option at that stage, and had received no information about the likelihood that Baby C would not respond to resuscitation. It was clearly known to the medical staff at that time that survival was unlikely, but it should not have been assumed that Mr and Mrs C would have been aware that resuscitation would most likely not have been successful. They had different expectations because of the information given, or not given, to them. In particular I note Mr C's position that the advice he and Mrs C received before the delivery contradicted the information given to him by the Neonatal Consultant when she brought Baby C to him. The distress subsequently caused to Mr C at this point, and to Mrs C when she awoke from general anaesthetic, cannot be underestimated.

67. I am not satisfied by the Board's response in this regard. I note they said to Mr C '… sadly [the Neonatal Consultant] did not have the opportunity to explain to you that this [terminal gasping] can occur with premature babies (though this does not change any chance of survival) and is a natural progression prior to loss of life'. The Board does not appear to have acknowledged or considered that it would have been appropriate to arrange a pre-delivery discussion with the Neonatal Team and Mr and Mrs C, nor that this might have reduced the subsequent acute distress and confusion experienced regarding the decision to end resuscitation. Nor did they recognise that it was inappropriate to leave no option but to have to hold the discussion immediately post-birth, at a time when Mr C could not be present during the procedure and whilst Mrs C remained under general anaesthetic.

68. It is also of great concern to me that it does not appear that a signed consent form was obtained from Mrs C. This is particularly so given the fact Mr C had expressed concern about Mrs C's state of mind on the day of delivery.

69. Given the advice received and my findings, I uphold this complaint. The failings identified had a huge impact upon Mr and Mrs C at an extremely difficult time. Whilst I accept that all of the staff involved in Mrs C and Baby C's care would have been attempting to do their utmost for both mother and baby in a complex and sensitive medical situation, I make the following recommendations to ensure lessons are learned from this case and that procedures are improved for the future.

(c) Recommendation

70. I recommend that the Board:	*Completion date*
(i) remind all of the staff involved in Mrs C's care of the importance of obtaining signed consent forms for caesarean sections;	11 September 2013

General Recommendations

71. I recommend that the Board:	*Completion date*
(i) issue a full apology to Mr and Mrs C for all of the failings identified in this report;	4 September 2013
(ii) draw this report to the attention of all neonatal, obstetric and maternity staff at the Hospital; and	4 September 2013
(iii) conduct a significant event analysis of Mrs C and	20 November 2013

Baby C's care from the point of Mrs C's admission until Baby C's delivery and treatment.

72. The Ombudsman asks that the Board notify him when the recommendations have been implemented.

Annex 1

Explanation of abbreviations used

Mr C	The complainant
Mrs C	Mr C's wife
The Hospital	Aberdeen Maternity Hospital
Baby C	Mr and Mrs C's baby daughter
The Board	Grampian NHS Board
The Neonatal Consultant	A Neonatal Consultant at the Hospital
Adviser 1	My consultant obstetrician adviser
Adviser 2	My consultant neonatologist adviser
The Senior Neonatal Consultant	The senior Neonatal Consultant at the Hospital
The Obstetric Team	The obstetric team at the Hospital
The Neonatal Team	The neonatal team at the Hospital

Annex 2

Glossary of terms

Amniocentesis	testing cells from the amniotic fluid (the liquid that surrounds the unborn baby) for abnormal chromosome patterns
Antenatal corticosteroids	medication given to women expecting pre-term delivery, in an attempt to reduce morbidity and mortality
Biometric measurements/Fetal biometry	a series of measurements taken of an unborn baby to establish growth
Caesarean section	a surgical procedure in which an incision is made through the mother's abdomen and uterus to deliver their baby
Cardiotocography monitoring (CTG)	a technical means of recording the fetal heartbeat
Cytogenics	a branch of genetics that is concerned with the study of the structure and function of the cells, especially the chromosomes
Diastolic flow	a wave form pattern detected by the screening tool the umbilical artery Doppler – a normal wave pattern is called 'positive end-diastolic flow'
Doppler flow	a type of ultrasound that uses soundwaves to measure the flow of blood through a blood vessel
Ductus venosus	a small vessel in the fetal liver from which blood flow can be assessed

Gestational diabetes mellitus	any degree of glucose intolerance with onset or first recognition during pregnancy
Histology	the study of tissues which provides information on functional morphology (the study of the form and structure of organisms and their specific structural features)
Small for Gestational Age Foetus (SFGA)	a baby which is smaller in size than normal for the gestational age, most commonly defined as a weight below the tenth percentile for the gestational age
Umbilical artery Doppler (UAD)/Venous Doppler technique	the primary screening tool to help define the underlying cause for a small for gestational age foetus
Uteroplacental insufficiency	insufficient blood flow to the placenta, which means the placenta is unable to deliver an adequate supply of nutrients and oxygen to the foetus

Annex 3

List of legislation and policies considered

Small-for-Gestational-Age Fetus, Investigation and Management: (Green Top 31): Royal College of Obstetricians and Gynaecologists [2013]

Fetal assessment of the patient with medical complications: Maternal Medicine – Medical Problems in Pregnancy: Greer [2007]

Paediatrics: Vermont Oxford Network – *Fetal Infants: Study of 4172 Infants with Birth Weights of 401 – 500 grams* [2004]

Resuscitation Council – *Newborn Life Support* [2012] (updated)