**D E T E R M I N A T I O N**

**by**

**ANDREW LOTHIAN, Esquire, Advocate, Sheriff of Lothian and Borders at Edinburgh**

**in Inquiry into the circumstances of the death of**

**KYLE ROBERT BROWN (Born: 29.07.04)**
**residing latterly at 98 Crewe Crescent, Edinburgh**

**Under the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976**

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**Parties to the Inquiry:**

1. **The Procurator Fiscal, represented by Ms Lynne Barrie, Procurator Fiscal Depute.**

2. **NHS 24, represented by Rory Anderson, QC.**

3. **Lothian Health Board, represented by Mrs Norma Shippen, Solicitor.**

4. **The parents of the child, represented by Mr Stuart Brown, the father of the child.**

**EDINBURGH, 1 October 2007**

The Sheriff, having resumed consideration, determines as follows:-

1. In terms of Section 6(1)(a) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act ("the 1976 Act") that Kyle Robert Brown, born 29 July 2004 died at the Royal Hospital for Sick Children, Edinburgh at 15.34 hours on 2 April 2006.

2. In terms of Section 6(1)(b) of the 1976 Act that his death was caused by Meningococcal Septicaemia.

3. In terms of Section 6(1)(c) of the 1976 Act that his death might have been avoided by the following reasonable precautions:

   The provision of a "routing tool" sufficient to enable a Call Handler to initiate immediate emergency action in respect of the presentation of symptoms of Meningococcal Septicaemia.

4. In terms of Section 6(1)(d) of the 1976 Act there was the following defect in the system of working which contributed to Kyle Robert Brown's death:

   The absence of such a system as referred to above.

**NOTE:**

Kyle Robert Brown was born on 29 July 2004 and died on 2 April 2006. His mother was Lisa Thomson and his father Stuart Brown. He lived in family with his mother and elder sister, Chantelle. His father was a regular visitor to the home and was there on the day that Kyle became ill.

On 31 March 2006 Kyle woke up crying. He seemed out of sorts all day and did not take much in the way of food or drink. He fell asleep on and off. His parents considered that he was not seriously unwell and thought that some of his symptoms were similar to those he had had previously when unwell the previous November.

From about 2.00 pm onwards Kyle was hot and frequently crying. His mother gave him Calpol thinking that this might help him with teething problems and also rubbed his stomach which seemed to calm him down.

Kyle woke up again about 5.00 pm. He still seemed unwell and his mother considered and discussed with his father whether or not they should consult a doctor. In the event Kyle's father went to a chemist but it was not open.

Kyle's father left at about 6.30 pm. Later on in the evening Kyle was sick, but the memory of similar behaviour the previous November led his mother to conclude that he was suffering from something similar.

Kyle went to sleep eventually at about midnight and his mother not long thereafter. His mother was woken at about 2.30 am. There was a smell of faeces from Kyle. She put on the hall light which allowed some illumination of the bedroom. Kyle was wearing a nappy only at that stage. His mother noticed for the first time marks on him which she described as being like bruising marks and a reddy purple. She was startled and scared by this and after changing Kyle's nappy she phoned NHS 24 at 02.52 hours to seek advice. At this stage Kyle was moaning and rolling about on his mother's bed.

Kyle's mother spoke to Jonathan Aitken, a call handler at NHS 24, who was the second witness. He took details of Kyle's condition and attempted to put Miss Thomson through to a nurse to whom she could speak. No nurse was available and Miss Thomson was told that she would be telephoned back by a nurse within a fairly short time. It is not clear to me how she could be told anything about a short time because at that stage the call had not been prioritised.

According to standard NHS 24 procedure triage then took place carried out by Graham Revie who was the third witness, a team leader. He gave evidence that it would have been his assessment at the time that Kyle's case should be allocated to the P1 category, which is the more urgent, but for reasons which are not clear, but may have involved a mechanical mistake by Mr Revie, Kyle's name was entered as P2. Mr Revie could have, but did not at that stage, categorise Kyle's case as "serious and urgent", but he probably did not have enough information to enable him to do that.

One of the nurses, Fiona Nisbet, telephoned Kyle's mother at about 3.32 am and discussed Kyle's case with her. Certain tests were suggested which Kyle's mother carried out on him designed to see whether the rash would change colour when digital pressure was exerted on it. It did not do so and thus is characterised as "non-blanching". It appears that Miss Nisbet was not fully satisfied that the tests had been understood and carried out properly and accordingly she took the decision to refer Kyle to the out of hours facility staffed by general practitioners situated in the Royal Infirmary, Edinburgh. This is known as the Primary Care Emergency Centre. It is now generally agreed that it would have been proper at this stage for an ambulance to have been called to take Kyle straight to the Accident and Emergency Department at the Royal Hospital for Sick Children, Edinburgh. Miss Nisbet made an appointment for Kyle emphasising that he should be seen within an hour and in fact was given an appointment for him for 4.40 am. She communicated this to Kyle's mother and informed her that she would order a taxi which should come fairly soon to take them to see an out of hours GP.

In the event Kyle's mother grew anxious waiting for the taxi which took longer than she had expected. At about 4.03 am she again phoned NHS 24 to find out what progress was being made. While she was on the telephone the taxi did arrive and she

rang off and took Kyle and his sister in the taxi to the Infirmary premises arriving there at about 4.27 am.

Having made herself known to the receptionist, Miss Thomson was invited to take a seat but after about two minutes, in view of how ill Kyle seemed to be, she spoke to the receptionist again. The receptionist immediately hailed a passing doctor, namely Dr Donald Allan. He was working in the out of hours GP facility. Dr Allan immediately took Kyle into a treatment room and then at once called out that he needed further assistance. This call was heard by Dr George Craig also working in that facility who immediately went to help Dr Allan. It was clear at this stage that Kyle was very unwell. Both doctors immediately began to attend to him and quickly sent for the specialist emergency registrar, Dr Stephen Lynch, who was in the (adult) Accident and Emergency Department. He came immediately, and in haste, accompanied by Staff Nurse Connolly. They took Kyle at once to Accident and Emergency where there were facilities for resuscitation, including facilities especially suited to children.

Various procedures were carried out at this stage, but it became obvious almost at once to Dr Lynch that Kyle should be treated at the Royal Hospital for Sick Children. He contacted said hospital and a team from there was dispatched to transfer Kyle as quickly as possible. They left the Infirmary with him at about 5.00 am. In the meantime, as a result of this call the specialist anaesthetist, Dr Julie Freeman, also responsible for intensive care, had independently come from her home to the Infirmary and was there before the removal team arrived.

It should be noted that from the time of his arrival at the Infirmary the treatment received by Kyle was entirely appropriate. Thereafter he continued to receive treatment, again of an entirely appropriate sort, at the Royal Hospital for Sick Children. Sadly Kyle's condition continued to deteriorate and he sustained severe brain damage, together with necrosis with the likely loss of at least two limbs. His parents were informed that he had no chance of survival and once they had come to terms with this Kyle was placed first in his mother's and then in his father's arms. He was pronounced dead at 15.34 on 2 April 2006.

A post-mortem was carried on 4 April 2006 and Crown Production No 2 is the post-mortem report. By way of Joint Minute of Agreement this is agreed as true and accurate. It was found that changes in the brain were compatible with very early meningitis. The cause of death was Meningococcal Septicaemia.

**Whether there were any reasonable precautions whereby the death of Kyle might have been avoided**

Given that once the doctors began to treat Kyle what took place thereafter was entirely appropriate, the question which arises for the Inquiry is whether or not anything could have been done at an earlier stage which might have resulted in Kyle's life being saved. The language of Section 6(1)(c) speaks of reasonable precautions, if any, whereby the death …… might have been avoided. This Section has not been the subject of much judicial consideration. In one Inquiry (James McAlpine), Sheriff Brian Kearney stated the phrase ""might have been avoided" is a wide one which has not, so far as I am aware, been made the subject of judicial interpretation. It means less than "would", on the balance of probabilities have been avoided and rather directs one's mind in the direction of lively possibilities." This observation is echoed in the standard text book on the subject "Sudden Deaths and Fatal Accident Inquiries" by Ian H B Carmichael, Advocate, which suggests at page 174 "What is required is not a finding as to a reasonable precaution whereby the death or accident resulting in the death "would" have been avoided but whereby the death or accident resulting in the death "might" have been avoided, and, later "certainty that the accident or the death would have been avoided by the reasonable precaution is not what is required. What is envisaged is not a "probability" but a real or lively possibility that the death might have been avoided by the reasonable precaution". It is noticeable that the legislature did not invoke such a test as "on the balance of probabilities" and so must be presumed to have intended some lesser chance. The way that I consider this matter is to conclude that the sense of "might" is that the chance of survival cannot be completely ruled out. In the circumstances here because of the evidence given about the different progress of the disease in different children, especially by Dr Julie Freeman, the possibility that Kyle might have survived cannot be ruled out. I have to say that it seems improbable that he would have survived considering how ill he was by the time his mother first phoned NHS 24. However, on the evidence, I do not feel that I can rule out the possibility that Kyle might have survived, albeit with the loss of

one or more limbs or even with brain damage. Even to say that earlier appropriate intervention might have made a difference, as Dr Freeman did, illustrates, I think, the way in which the legislature intended "might" be construed. I am conscious that I may appear to differ in this respect from the analysis of Sheriff Kearney. However, my understanding of the use of the word "might" means effectively any chance at all no matter how slim.

It will be apparent that the conclusions of the present Determination turn on the construction of what "might" means rather than a consideration of the evidence, but given the conclusion that I have reached, I have to determine that Kyle's death might have been avoided had emergency treatment by means of a 999 ambulance call to take him to the Royal Hospital for Sick Children been made at any one of the three stages which I will later consider. That being so I turn to the question as to whether there were any defects in the system of working which contributed to the death of Kyle.

1. <u>The Routing Tool</u>

All calls to NHS 24 are received in the first instance by a non-medically qualified call handler. At the material time unless told that the patient is unconscious, or not breathing, the call handler takes details from the caller. These include demographic details, the reasons for the call and any other information which the caller wishes to provide. At the material time the call handler would then consult a routing tool, which is effectively a card with a number of symptoms written on it and an indication as to whether these instruct a requirement for "serious and urgent" treatment, "triage" or "consultation". There are two other categories, "Pharmacy" and "HIA" which need not concern us here. There is no suggestion that Jonathan Aitken, the call handler, did other than act appropriately in terms of what he as supposed to do. However, it does appear to me that the routing tool then in use was not adequate to recognise the symptoms of Meningococcal Septicaemia. What Mr Aitken did was to look at entries on the routing tool for "rash", "vomiting and diarrhoea" and "high temp". All of these indicated "triage" and, accordingly, that was the route down which the call handler placed the call. He tried to transfer the call to a nurse, but one was not immediately available.

It is to be supposed that they were all engaged in other calls. Two criticisms, I think, may be made. In the first place "rash" is a very wide category as has now been recognised by the introduction of two replacement categories "rash - patient unwell" which attracts a characterisation of "strict and urgent" and "Rash - patient otherwise well", which leads to "triage". Secondly, and this still does not seem to have been addressed, there does not appear to have been any mechanism whereby it could be decided by a call handler that a number of symptoms taken together could make matters such as to go into a more serious category. Accordingly the routing tool at the time should have been such as to enable the call handler who works from it, and it alone, to recognise the symptoms of Meningococcal Septicaemia and make sure that the matter was drawn immediately to the attention of a nurse or team leader with no further delay. It was explained by Malcolm Alexander the Associate Medical Director of NHS 24 at the time, that it was thought that in the case of Meningitis the matter would become "serious and urgent" by virtue of two other symptoms, namely, "crying baby – abnormal cry" or "crying baby – high pitched cry". However it was not represented to me by any other witness that this was adequate. Although he spoke of "Meningitis" I understood this to apply as well to Meningococcal Septicaemia, which may develop much more quickly.

In her final address to me Miss Barrie suggested that some thought might be given to a measure of medical training being given to call handlers not so that they could triage calls themselves, but with a view to making them aware of situations in which they should call a team leader immediately. However the matter was not gone into in any great detail at the Inquiry and I make no recommendation about this. It is clear however that if routing tools are to be used by non-medically qualified call handlers they must be clear, comprehensive and simple to use. It is recognised that this may not be easy but if the system is to function properly it is necessary.

2. The system of call prioritisation by team leaders

According to the witness, Graham Revie, a senior nurse employed as a team leader who gave evidence, at the material time calls not dealt with by a nurse speaking to the person immediately were prioritised by the team leader to be classed either as priority 1 which would mean a call back by a nurse within 30 minutes or priority 2 which would mean a call back within 60 minutes. It was Mr Revie's evidence that he thought he would surely have assessed the call as being appropriate for priority 1. However he was unable to explain why the call had been assigned to priority 2. In the whole matter the most likely explanation seems to have been a mechanical failure by Mr Revie in entering the call on the computer as "priority 2" by mistake. However in this case the call back was made at 3.32 am and it may be that little if any significant time was, in the event, lost through this mistake in the context of the system operating. I think Mr Anderson's suggestion that the basic and essential failure in this particular case is not in respect of this matter, but in respect of the routing tool, is correct.

3. The system of decision-making by nurse advisers

It is common ground by everyone involved, I think, that while Fiona Nisbet, the nurse who called back to Lisa Thomson at 3.32 am, obtained a clear and accurate account of Kyle's symptoms she should then have been in a position to take a decision to refer Kyle for emergency treatment at the Royal Hospital for Sick Children by means of an emergency ambulance. At the material time Miss Nisbet was a senior nurse who had qualified some 10 years previously and had completed her induction training at NHS 24 and had been working as a nurse adviser for some two years. Her explanation for the course she took was that while Kyle's mother had not been able to get the rash to fade on pressing it with her finger (a test that would have clearly indicated Meningococcal Septicaemia or something similarly serious) someone might have been able to do so and, accordingly, she thought it appropriate to have the rash further assessed by a GP. While it may be that this was an individual error of judgement on the part of Miss Nisbet, it seems to me more probable

given the high standard of her other work that this came about as the result of inadequate training by NHS 24 in the recognition and vital importance of early recognition of Meningococcal Septicaemia. In particular, because of the importance of swift action, nurses in the position of Miss Nisbet should have been trained that if they got as far as hearing of symptoms which supported an initial diagnosis of Meningococcal Septicaemia they should act immediately as if it had been established, rather than, because of the possible loss of time involved, seeking to have the diagnosis confirmed. Implicit in this is that nurses should be trained to act on the symptoms as described to them, rather than to entertain the possibility that the symptoms have been wrongly described. Accordingly, it can be seen that there are three areas where failures might have contributed to Kyle's death.

Can it be said that swifter action by NHS 24 might have saved Kyle's life?

As has been noted there are effectively three stages at which swifter action might have been taken.

(a) Had the call handler been able either to initiate a 999 ambulance call himself, or had he been able immediately to refer the matter to a Team Leader or a nurse who might have done this.

(b) The team leader on receiving notification of the call might have either called an ambulance immediately or given the case priority 1.

(c) The nurse who returned Miss Thomson's call might have immediately organised an ambulance to take Kyle to the Royal Hospital for Sick Children.

The question, however, is whether any of these actions might have resulted in Kyle's life being saved. At the outset it has to be said that because of the rapid onset and development of the disease Kyle was a very sick child by the time his mother came to telephone NHS 24 for the first time. It follows from this that of the various possibilities mentioned above there has to be diminishing

likelihood of Kyle's life being saved. For the avoidance of doubt we are not necessarily talking about his life being saved intact, but being saved with him in such a state as to have been able to lead a worthwhile, even if diminished, life.

The two witnesses who deal with this matter are Dr Julie Freeman, Consultant Anaesthetist at the Royal Hospital for Sick Children who became involved in Kyle's treatment at an early stage and Dr John Beattie who, although he never saw Kyle, compiled a most helpful report which was lodged on behalf of NHS 24. Of the two I think it is fair to say that Dr Freeman is slightly the more optimistic. It was her evidence that the most important elements of treatment are the administering of intravenous fluid and antibiotics, and the patient thereafter being continuously assessed and monitored for further treatment. It was her view that the giving of antibiotics as early as possible is particularly important when the patient has a rapid evolving form of the illness. She found that it was difficult to say whether or not early treatment would have changed the outcome. She did, however, consider that any possibility of reversing or improving his condition would have increased had he attended Accident and Emergency at the Sick Children's Hospital earlier. It is not surprising, in the circumstances, that Dr Freeman could not say definitely whether earlier treatment would have affected the outcome for Kyle. In his assessment of all of Kyle's circumstances Dr Beattie in his report concluded as follows:-

8.1 "Kyle Brown exhibited one of the most severe examples of overwhelming infection encountered in paediatric clinical practice".

8.3 ""Purpura fulminans" has a very high mortality, and many children with this will die despite optimal care."

8.5 "If he had attended RHSCE an hour or so earlier than the time he arrived at NRIE, it is possible that his condition was a little less severe and therefore the possibility of being able to control and reverse his septic shock would be somewhat higher."

8.6 "However, overall, my opinion is that his illness was so severe that it is more likely than not that his outcome would be the same."

In his oral evidence Dr Beattie spoke to the terms of his report. In cross-examination he described Kyle as being so severely sick that it was very unlikely that anything could have been done for him. As regards the possibility of the provision of oxygen which would have happened had Kyle travelled by ambulance he said that this would certainly do no harm. As regards the possibility that earlier treatment might have resulted in a different outcome, Dr Beattie said "We just don't know" while going on to add that any earlier action increases the possibility of a different outcome. In saying so I think he was very much in line with the opinion of Dr Freeman.

Dr Freeman agreed that an ambulance would have given oxygen to Kyle and that it might have had a significant impact but it was difficult to say how much. When asked to consider whether or not earlier treatment might have affected the outcome it was her position that it was difficult to say and that she did not absolutely know. She did say, however, that a patient in Kyle's position should be treated as early as possible. Returning to this topic when cross-examined by Mr Anderson she agreed with him that the outcome for Kyle may well have been the same regardless of when he was first treated, that "We will never truly know" and "Early treatment may well have made no difference".

Approaching this matter as I do on the basis that "might" implies any chance not ruled out by an application of "*de minimis*" considerations I have to hold, contrary to Mr Anderson's submission, that one cannot here rule out the possibility that earlier treatment might have had the effect of saving Kyle's life. Mr Anderson's submission was based on a construction of the word "might" as "directs one's mind in the direction of lively possibilities", to use Sheriff Kearney's phrase. If I am wrong about this, then I think it only fair to record that there was not evidence that there were "lively possibilities" of Kyle's survival, given immediate treatment. The matter is as narrow as that.

Where any recommendations are necessary in the light of steps taken by or on behalf of NHS 24 subsequent to Kyle's death?

I should state here that I am satisfied that all of the witnesses who gave evidence (a list of whose names is appended hereto) were both generally credible and reliable. I did not have the impression that any of the witnesses approached the case with other than the utmost gravity and sincerity and I think that they were all honestly trying to, and as best as I could judge, succeeding in telling the truth about what happened. Further, I am satisfied that NHS 24 and its management has treated the matter of Kyle's death with the utmost seriousness and has behaved responsibly in endeavouring to put matters right.

I should say, however, that drastic situations demand drastic solutions and it is my view that there should have been a system in place whereby more could have been done by or on behalf of NHS 24 to respond to a situation such as this. It should have been possible to ascertain from Miss Thomson, whose conduct in this matter cannot be criticised, that Kyle was probably gravely ill with Meningitis and Meningococcal Septicaemia at the first time she called and that if anything was to be done to save Kyle's life it really would have to be done immediately.

As was submitted by Miss Barrie, and agreed by Mr Anderson, where things initially went wrong was with the routing tool. Indeed, as Mr Anderson pointed out, had the routing tool been adequate for the purpose of dealing with a case such as Kyle's, none of the other later failures would have been of any importance because they simply would not have had the opportunity to happen. As Miss Barrie said in her written submission "The routing tool in place at the time does not appear to have been adequate to recognise the symptoms of Meningococcal Septicaemia. The symptoms with which Kyle presented with, and which Lisa Thomson explained to the call handler, appear to have been typical symptoms of the disease according to Drs Lynch, Freeman and Beattie." I do not think that there can be any criticism of the call

handler's actings in terms of his training and the routing tool which he was obliged to follow exclusively. The particular deficiencies in the routing tool were that "rash" was too inspecific a term in the circumstances, that there was no entry in the routing tool for "bruises" and there was no capacity for various symptoms to be viewed collectively or cumulatively in order to consider the picture presented by them as a whole. As I have mentioned before it was suggested by Malcolm Alexander, the Associate Medical Director of NHS 24 that it had been thought at the time that a case of Meningitis would have also presented with other symptoms to be found on the routing tool such as "abnormal cry" or "high pitched cry" which in turn would have led to the call being graded as "serious and urgent" rather than "triage" which would be the result of "rash". However no other witness spoke to this. This is not now the position of NHS 24 and can, I think, be disregarded. I should say at this stage that there was also a suggestion made on behalf of the Procurator Fiscal Depute that consideration might be given to some medical training being given to call handlers to enable them to react without exclusively referring to the routing tool. I have considered this but am of the view that it was not gone into sufficiently in evidence and in any case it would appear that anything other than a thorough training, which would effectively put the call handler in the same position as regards knowledge as a nurse, would be likely to have as many dangers as advantages.

It was conceded on behalf of NHS 24 that the routing tool had been defective.

As regards further action the routing tool has now been amended so that a rash where the patient is otherwise unwell now falls to be treated as "serious and urgent". I consider that this is a proper and necessary improvement. There are, however, two further matters which I think should be addressed. First of all "bruises" still does not appear on the updated routing tool. It was the evidence of Mr Alexander that "rash" does include bruising. However given the important fact here that Miss Thomson in her call clearly indicated that the rash was of a bruising nature, that is to say involving comparatively large areas, rather than small spots, and given Dr Freeman's evidence that concerned callers were likely to speak of bruises rather than rashes if that is

what they looked like, I think further consideration should be given to altering the routing tool to recognise this. Secondly, it is not clear whether or not there is now more scope for call handlers to regard symptoms collectively. Mr Alexander gave evidence that there was a document made available to call handlers during their training to encourage them to take account of multiple symptoms and possibly thereafter to refer the matter directly to team leaders. This document was not a production and there seems to be doubt as to whether or not it actually exists. While I can see that in certain circumstances there will be present a key symptom which is effectively the governing one, I think that consideration should be given by NHS 24 to provide for situations in which a combination of symptoms, each of a lower significance, elevates the gravity of the call. What one has to bear in mind, I think, is that the call handler should be provided with a tool which as near as possible puts him in the position of a general practitioner seeing a patient face to face from the point of view of recognising not necessarily a particular illness, but certainly its potential gravity.

Prioritisation by Team Leader

Two matters arise in this connection although as noted, had the routing tool been adequate they would not have. For that reason I have not included such failures as defects in the system of working, although they are important. The first is in regard to what must be assumed to be a mechanical error by Mr Revie in placing this case as category priority 2, rather than priority 1. This operation was carried out on a computer screen and it is assumed that a mechanical error on the part of Mr Revie was involved, computer failure having been ruled out after investigation. In spite of evidence to the contrary I remain unconvinced that it would not be possible without any adverse effects for the team leader to have to enter the priority twice before the category was recorded as assigned, very much in the way that one sometimes has to when providing a password on a computer. Evidence was given by Mr Alexander to the effect that this had been considered and that it would slow down the system. I did not really understand why this should be so and consider that it is appropriate that further consideration be given by NHS 24 to this matter.

Secondly, there is the question of the fact that at the material time decisions on prioritisation were taken by the team leader on the basis of his own clinical judgement. Such decisions were neither monitored nor counter-checked by anyone else. I understand that steps have already been taken by NHS 24 to improve this situation. Team leaders now have guidance as to how they are to go about their tasks and also have to pass a competency framework test. The task of prioritising is, as the Procurator Fiscal Depute submitted, now a dedicated one, as opposed to one carried out while the team leader was also involved in supervising other staff. Additionally there is now an extra team leader who continually reviews and assesses prioritisation. It seems to me that these steps are probably sufficient in the circumstances and should, of course, also have the effect of noticing and correcting an inadvertent mechanical error.

Whether there is any defect in the system of decision-making by Nurse Advisers?

It is clear from the evidence that up to a certain point, the nurse, Fiona Nisbet, did a good job of obtaining details about Kyle and his symptoms. However, it is now generally agreed that it would have been appropriate for her to have called a 999 ambulance with a view to having Kyle taken directly to the Royal Hospital for Sick Children. The question arises whether this was an individual error on her part, or one made as the result of inadequate training. In my judgement it is clear that Miss Nisbet, and no doubt other nurses, had not received adequate training in the appropriate steps to be taken when Meningococcal Septicaemia was suspected. It is quite understandable that a nurse suspecting this condition should ask a doctor to look at the patient if the doctor happens to be next door. The matter is quite different though when one is dealing with matters at a remove as regards time and place. I think that there should have been training which would have resulted in nurses in Miss Nisbet's position first of all realising that there was a distinct possibility of Meningococcal Septicaemia; secondly, realising that the important thing was not to confirm this, but to behave as if it had been confirmed; thirdly, to take immediate action to make sure that the patient got to Accident and Emergency as quickly as possible and fourthly, to act on the symptoms as described in the

call and not to assume that they might be inaccurately described. As everyone has agreed, this meant in the present case an ambulance, rather than a taxi. The principal virtues of an ambulance would be the speed with which the patient was likely to reach hospital, the probability of oxygen being administered by ambulance personnel and the fact that such personnel could radio ahead to the hospital with any informed comments which might lead to speedier treatment on the patient's arrival. As well as additional training, which in my view was clearly necessary, the question was also raised as to whether or not nurses in Miss Nisbet's position should be encouraged to seek a second opinion from a team leader if they are not going to take immediate action. I consider that it is appropriate that this should be included in any training.

It does appear, however, that NHS 24 has changed its system in response to Kyle's death. Nurse advisers are now required to use Algorhythms in respect of all calls regarding patients under the age of 12. However, it is clear that any action will always be dependent on the nurse adviser recognising the possibility of the particular illness and understanding that it is better to act on suspicion than to wait and have that suspicion confirmed when it is too late. It appears from the training materials lodged on behalf of NHS 24 that training now does stress the importance of immediate emergency referral to hospital so that to a large extent this matter may have been properly addressed. However I think it important that NHS 24 if it has not already done so, should consider which illnesses which are likely to be reported and the significant indicators which properly arouse suspicion to such an extent that emergency treatment is appropriate and that the result of such consideration is that the routing tool is made to reflect this.

I should record that Mrs Shippen who appeared on behalf of the Lothian Health Board was principally concerned with establishing that the actions of employees of the Health Board should not be subject to adverse criticism. It is clear from all the evidence that from the moment that Kyle came into contact with any person employed by the Lothian Health Board, he received the highest standard of care and no criticism can attach to them.

Mr Brown, who appeared on behalf of himself and Miss Thomson raised a question in the course of the proceedings as to whether or not Kyle should have been taken by ambulance as an emergency. I hope that this question has been answered. Further, he raised the question of whether or not sufficient nurses were employed by NHS 24. The only evidence available about this was to the effect that the number of nurses available varied according to anticipated demand. On the evidence which I heard I am not able to comment further on this matter. I do however share Mr Brown's unease that a person calling about a sick child should not be able to speak to a nurse at once. However I think that the possible ill-effects of this will be avoided by the provision of a fully adequate routing tool. I should say that if people calling up are not to speak directly to nurses, which appears to be the system, since a call handler will always be the person who replies first, then it is vital that call handlers be properly equipped to recognise and deal appropriately with any situation presented to them.

**Appendix/**

## Appendix

## List of Witnesses

1. Miss Lisa Thomson.
2. Jonathan Aitken.
3. Graham Revie.
4. Fiona Nisbet.
5. Carol Gilchrist.
6. Gillian Wallace.
7. Dr George Craig.
8. Dr Stephan Lynch.
9. Dr Julie Freeman.
10. Dr Catherine Mackenzie.
11. Dr Malcolm Alexander.
12. Michelle Jamieson.
13. Dr John Beattie.