

SHERIFFDOM OF NORTH STRATHCLYDE AT DUMBARTON
FATAL ACCIDENTS AND SUDDEN DEATHS INQUIRY (SCOTLAND) ACT 1976

DETERMINATION

of

SHERIFF SIMON C. PENDER

Following an Inquiry into the circumstances of the death

of

ANDREW LOGAN, who resided in Clydebank.

Dumbarton: 25 September 2015

The Sheriff, having resumed consideration of the evidence and submissions, determines as follows:

1. Under section 6(1)(a) of the Fatal Accidents and Suddenly Deaths Inquiry (Scotland) Act 1976 ("the Act"), that Andrew Logan, whose date of birth was 13 March 1953, died between about 02.02 hours and about 02.56 hours on 18 September 2011, either within his home in Clydebank, or in the ambulance conveying him from his home to the Western Infirmary, Glasgow, or at the Western Infirmary, Glasgow.
2. Under section 6(1)(b) of the Act, that the cause of Andrew Logan's death was a ruptured aneurism of the right common iliac artery.
3. Makes no determination under sections 6(1)(c) or (d) of the Act.
4. Under section 6(1)(e) of the Act; (a) that on 17 September 2011 the call taker supervisor at the Ambulance Control Centre of the Scottish Ambulance

Service at Cardonald, Glasgow, did not follow the required procedure in terms of the Scottish Ambulance Service protocol then in force, when it became clear that an ambulance would not arrive at Andrew Logan's home within the four hour time frame ordered by the out of hours General Practitioner, in that he did not make any attempt to contact the ordering authority, i.e. the General Practitioner (through the out of hours service) and, when making a telephone call to the home of Andrew Logan at about 23:04 hours, he did not identify to whom he was speaking, and did not ascertain properly whether or not there had been any change in Andrew Logan's condition; (b) that there is a need to take steps to ensure that all staff at the Ambulance Control Centre of Scottish Ambulance Centre are familiar with, and understand the importance of complying with, the protocol in force in respect of procedure when an urgent call will not be dealt with within the required timescale; and (c) that there is a lack of clarity in the current protocol setting out the procedure for dealing with urgent calls "going out of time", and among Scottish Ambulance Service personnel, as to the circumstances in which a 2, 3 or 4 hour urgent call should be upgraded to an emergency call, or in which such an upgrade should be considered, and as to who has authority to effect such an upgrade.

Note:

[1] This Fatal Accident Inquiry into the death of Andrew Logan on 18 September 2011, took place on various dates between 12 January and 4 June 2015, including a visit on 29 January to the SAS Ambulance Call Centre in Cardonald, Glasgow.

Regrettably, original estimates on behalf of parties of the time which would be required for all the evidence to be led, and submissions made, proved to be inaccurate. The Inquiry was set down for 12 to 30 January. The evidence could not be concluded by the end of that period, and the earliest dates which could be found to continue the Inquiry, which suited all those representing parties, were in May, with dates being fixed in early June for submissions.

[2] The Crown was represented by Mrs Ross, Procurator Fiscal depute. Also appearing at the Inquiry were Mr Cahill, solicitor, for the family of Andrew Logan, Mr Jessiman, solicitor, for Dr Marshall and Dr McDevitt, Mr Dawson, Advocate, for Greater Glasgow Health Board, and Mr Khurana, Advocate, for the Scottish Ambulance Service ("SAS").

[3] The Crown led evidence at the Inquiry from the following witnesses:

1. Eileen Logan, wife of the deceased, Andrew Logan
2. Iain McKay, brother in law of Andrew Logan, an Accident and Emergency Team Leader with SAS based at its Clydebank station.
3. Alan Weir, Paramedic, who works for SAS at its Glasgow West station, at Gartnavel General Hospital.
4. Dr. Kirsty Ray, Consultant in emergency medicine at the Royal Alexandra Hospital in Paisley, who, at the time of Andrew Logan's death, was a registrar in the Accident and Emergency unit at the Western Infirmary, Glasgow.
5. Peter Waugh, an Ambulance Technician, based at SAS's Vale of Leven depot, at the Vale of Leven Hospital in Alexandria.

6. James Cree, a Supervisor at SAS's Ambulance Call Centre in Cardonald, Glasgow, who, on the night of Andrew Logan's death, was working at that Call Centre as a Supervisor of call handlers.
7. Dr. Graeme Marshall, a General Practitioner at Gorbals Health Centre in Glasgow, who, on the night of Andrew Logan's death, was working for Greater Glasgow and Clyde Out of Hours Service.
8. Dr. Marjory Turner, Forensic Pathologist, who carried out a Post Mortem examination of Andrew Logan.
9. Gordon Mortimer, National Operations Manager for SAS, working at the Ambulance Call Centre in Cardonald.
10. Krish Veeramootoo, an Ambulance Technician based at SAS's Glasgow West station at Gartnavel General Hospital, and who in September 2011 worked as a despatcher at the Cardonald Ambulance Call Centre.
11. Lisa Curatolo, an Advanced Critical Care Practitioner, working for SAS, and who in September 2011 was an Ambulance Paramedic based at Springburn in Glasgow.
12. David Hunter, a retired National Duty Manager for SAS, who had, before retirement, managed the Ambulance Call Centre at Cardonald.
13. John Fairweather, Resilience Adviser at SAS's National Risk and Resilience Department.
14. Paul Fell, Consultant Paramedic with the North East Ambulance Service in Newcastle.
15. Mr. Paul Rogers, Consultant Vascular Surgeon in the Department of Vascular Surgery at the Western Infirmary, Glasgow.

16. Dr. Alan McDevitt, General Practitioner at the Green Medical Practice, Clydebank.

17. Mr. Rod Chalmers, Consultant Vascular Surgeon at the Royal Infirmary in Edinburgh.

18. Dr. Norman Gaw, a General Practitioner at Woodside Health Centre, Glasgow, who is also Clinical Director of the Greater Glasgow and Clyde Out of Hours Service.

Evidence was also given on behalf of SAS by:

1. Dr. Christina McLennan, Consultant Anaesthetist and Intensivist at Hairmyres Hospital, East Kilbride.

[4] Certain facts were the subject of agreement in a Joint Minute of Admissions.

[5] The facts of the matter, a great deal of which were agreed or not in dispute, were, in summary, as follows:

[6] In September 2011 Andrew Logan, whose date of birth was 13 March 1953, and who resided in Clydebank, was a man who suffered from various health difficulties, including severe respiratory difficulties. He had been on home oxygen for between 8 and 10 years, using oxygen for up to 15 hours in the day. Despite these difficulties he was able to do certain chores around the house. He could dress and feed himself. He required a stick for walking, and could walk only short distances before resting. He would occasionally go fishing. He was also a keen football supporter, attending home games of Clydebank Junior Football Club every second or third week. He would also attend international football matches at Hampden Park on about four occasions in the year. He would travel to football matches by public transport, which

he could manage on his own. He would travel to medical appointments on his own by public transport.

[7] In or around June 2008 Andrew Logan was diagnosed with an aneurysm of the right common iliac artery. He was aware of that diagnosis. He mentioned it to his general practitioner, although not at a formal consultation. Between the diagnosis in 2008 and 17 September 2011, a preoperative assessment of Andrew Logan was being carried out (in respect of a procedure unconnected with the aneurism), without the benefit of case notes. In answer to a question about serious illness, Andrew Logan informed the doctor carrying out the assessment that he had an aneurysm of the iliac artery.

[8] The diagnosis of the aneurysm was made by way of a scan carried out for another purpose. The aneurysm having been discovered, Andrew Logan was referred to a clinic of Mr Paul Rogers, consultant vascular surgeon. He was seen at the clinic on 11 June 2008 by a Dr Laura Nicol, a junior doctor attached to Mr Rogers' surgical unit, who decided to monitor the aneurysm by way of a follow-up appointment, preceded by another scan to ascertain if the aneurysm had changed, in six months' time, at which time Mr Rogers would himself have decided what action, if any, should be taken, and in particular whether Andrew Logan should be offered elective surgery to repair the aneurysm. No follow-up appointment was made, and Andrew Logan did not attend at Mr Rogers' clinic after six months, or at any other time. The reason for that is not known.

[9] I was satisfied on the evidence, in particular the evidence of Mr Rogers and Dr McLennan, that had Andrew Logan attended for a follow-up appointment, he would

not have been offered elective repair of his aneurysm, because of the various other health problems he had at that time.

[10] On 17 September 2011 Andrew Logan's wife, Eileen Logan, left home at around 13:00 hours to go to work. Andrew Logan left to go to a Clydebank Juniors football match shortly thereafter. Mrs Logan expected him to return home by about 18:00 hours, around the time when she returned from work. However, on that day when she returned from work she discovered that Andrew Logan had been home for some time. He had been experiencing pain and "did not feel right", and so had returned home. He had been experiencing pain in his groin, and had telephoned for the doctor.

[11] Andrew Logan telephoned NHS 24 at about 16:49 hours on that day, from his home. The call was answered by a call handler, Victoria Meldrum, within the NHS 24 call centre in Aberdeen. After taking details from Andrew Logan of the pain he was suffering, and asking certain other standard questions, the call was transferred by Victoria Meldrum to NHS 24 nurse, Louise Leggatt. During that telephone conversation Andrew Logan described sharp pain from his stomach to his groin which had started about two hours earlier. He confirmed that the pain was focused on the right lower side of the stomach. In addition to other questions, the nurse asked if Andrew Logan had any problems such as aneurysm. Andrew Logan replied that he did not (although he clearly did know about the aneurism, having mentioned it to his general practitioner, and having informed the doctor carrying out his earlier pre-operative assessment). She advised him to take some paracetamol and informed him that she would arrange for a doctor to come and see him. Crown Production 15 contains a transcript of the entire telephone conversation. Following that telephone

call NHS 24 contacted the Greater Glasgow and Clyde Out of Hours Service requesting that a GP visit Andrew Logan within two hours.

[12] At about 17:37 hours on 17 September 2011 Andrew Logan telephoned NHS 24 from his home for the second time that day. This call was answered by Susan Saxton, call handler within the Glasgow NHS 24 Centre. The call handler noted medical conditions from which Andrew Logan was suffering. She noted that Andrew Logan was complaining of worsening abdominal pain, and asked the standard questions, in terms of the NHS 24 safety questions protocol.

[13] At about 17:44 hours NHS 24 nurse, Sarah McNeil, telephoned Andrew Logan back. During that telephone call Andrew Logan reported to the nurse that he was in agony, and that the pain was increasing, despite the fact that he had taken paracetamol as advised in the earlier call. The nurse asked various questions for the purpose of “triaging” Andrew Logan. She asked questions about the appearance of his lower abdomen, and informed him that she was thinking of diagnoses such as hernia. She confirmed with Andrew Logan that he had COPD (chronic obstructive pulmonary disease), osteoarthritis, angina, sleep apnoea, leg ulcers, cellulitis, and kidney stones. She asked if he had any other medical problems. Andrew Logan responded that he did not. She recommended that Andrew Logan wait for the doctor who had already been ordered, and gave him advice as to how he might manage the pain. She advised him to call back if the pain did not improve with taking Dihydrocodeine. Crown production 17 is a full transcript of the telephone conversation.

[14] At about 18.31 hours on 17 September 2011 Dr Graeme Marshall attended at the home of Andrew Logan. Dr Marshall is a general practitioner, practising in the

Govan area of Glasgow, who also works as an out of hours general practitioner for the Greater Glasgow and Clyde out of hours service. He had received and printed out, in the car he was using that evening, the form which is Crown Production number 6, which was a form provided to him to take with him to his house call on Andrew Logan. Crown Production 7 is a copy of the NHS 24 report completed by Sarah McNeil, which is Crown Production number 42. The clinical information in these productions is the same. Dr Marshall examined Andrew Logan. At the time he was not in severe pain, but was suffering discomfort. He noted Andrew Logan's previous medical history, and the medications he was taking. Andrew Logan did not tell Dr Marshall that he had earlier been diagnosed as having an aneurysm of the right common iliac artery. Having checked Andrew Logan's physiology, and having noted that he was not pale, sweating, tremulous, or jaundiced, he examined Andrew Logan's abdomen. He diagnosed that the cause of the pain was probably an obstructed hernia, which was a surgical problem requiring assessment at hospital. Dr Marshall decided to order an ambulance, which he did at 18:39 hours. He requested a four hour response time for the ambulance. The ambulance was due therefore to attend at Andrew Logan's house by 22:39 hours.

[15] I was satisfied on the evidence of Dr Marshall that had the information he was provided with through the Greater Glasgow out of hours service included the information that Andrew Logan had earlier been diagnosed as suffering from an aneurysm of the right common iliac artery, or if Andrew Logan himself had alerted Dr Marshall to that earlier diagnosis, Dr Marshall would have acted differently. He would have been alerted to the possibility of a life-threatening condition, and if he had found that the symptoms being experienced by Andrew Logan had been

consistent with such an aneurysm, he would have ordered an emergency or “blue light” ambulance. According to the categories of urgency used by the Scottish Ambulance Service, such an ambulance would have been a category B, or Yellow, emergency ambulance, and would have been expected to arrive at Andrew Logan’s house within 19 minutes, and to have conveyed him as soon thereafter as possible to hospital.

[16] No ambulance arrived at the home of Andrew Logan within the required four hour period. At about 23:04 hours on 17 September 2011, James Cree, ambulance control Centre supervisor at the Emergency Medical Dispatch Centre (now known as the Ambulance Control Centre), Cardonald Business Park, Glasgow, telephoned Andrew Logan’s house, and spoke with his wife, Mrs Eileen Logan. Crown Production number 9 is a transcript of that telephone conversation.

[17] At about 01:07 hours on 18 September 2011 David Hunter, duty manager, upgraded the call for Andrew Logan to an emergency call – a category B, Yellow, emergency call, which was for an ambulance to attend at Andrew Logan’s home within 19 minutes.

[18] At about 01:16 hours that morning a 999 request for an ambulance was received from Andrew Logan’s wife.

[19] The ambulance did not arrive at Andrew Logan’s home until around 02:02 hours on 18 September 2011. By the time it arrived Andrew Logan had lapsed into unconsciousness and was unresponsive. A further ambulance was sent to assist. CPR was performed on Andrew Logan at his home, and in the ambulance on the way to the Western Infirmary. On arrival there are further attempt was made by hospital

staff to resuscitate Andrew Logan, but to no avail. He was pronounced dead at around 02:56 hours on the morning of 18 September 2011.

[20] As at 17 November 2011 Scottish Ambulance Service had a protocol in force, setting out required action in the event that the required time for attendance of an ambulance could not be met. Crown Production number 11 is a copy of a bulletin containing an extract of the relevant part of that protocol. In terms of that protocol, when the response time for 2 hours and over categories of urgent call could not be met three things were required. Firstly, the ordering GP was to be contacted and an extension of the original time negotiated. Secondly, the Ambulance Call Centre (as it now is called) was required to contact the patient, or the patient's relative/carer, to advise of reasons for the delay, and to give a revised arrival time. It was also a requirement that the patient's condition and welfare be reassessed. The protocol stated that where any clinical or welfare risk was identified, the Control Centre Manager or Supervisor should consider upgrading the call (to an emergency call) and/or contacting the GP again. Thirdly, the computer system was to be updated and relevant notes logged thereon.

[21] Between about 22:30 hours and about 22:39 hours on 17 September 2011 it became clear that the response time (within 4 hours) for the ambulance to arrive at Andrew Logan's home would not be met.

[22] No action was taken until the telephone call by the call taker supervisor, James Cree, to Andrew Logan's home at around 23:04 hours. Mr Cree did not comply with the protocol in force at the time, in that he did not make any attempt to contact the ordering GP. Further, he did not ascertain with whom he was speaking (although, in fact, it was Andrew Logan's wife), and did not ascertain, either from Andrew Logan

or from his wife, whether Andrew Logan's condition had changed (in particular whether it had changed for the worse). On the basis of an incorrect assumption, based on information from Andrew Logan's wife that he had gone "for a lie down" upstairs about an hour previously, he entered a note on the computer system to the effect that Andrew Logan's condition was unchanged. In fact, by the time of the telephone call Andrew Logan's condition had worsened, in that his sharp abdominal pains were more frequent and more severe.

[23] Had that been ascertained, it is likely that the call in respect of Andrew Logan would have been upgraded to an emergency call. That would have been a category B, or Yellow, emergency call, for an ambulance to attend at Andrew Logan's home within 19 minutes. It would have taken priority over all outstanding routine and urgent calls, and category C, or Green, emergency calls.

[24] The main issues which arose during the course of the Inquiry (being those arising from the objectives listed in the Application of the Procurator Fiscal, and an additional issue intimated at one of the preliminary hearings) were as follows:

1. The place, date, time and cause of Andrew Logan's death.
2. With reference to section 6(1)(c) of the Act (the reasonable precautions, if any, whereby the death might have been avoided):
 - i) whether an ambulance getting Andrew Logan to hospital earlier, in particular between 23:05 hours and 23:30 hours on 17 September 2011, might have resulted in his death being avoided;
 - ii) whether, in connection with the foregoing, (proper) contact between SAS, on the one hand, and the ordering authority and the patient (or patient's relatives), on the other hand, once it became known that the originally

- requested timeframe for arrival of the ambulance was not going to be met, would have resulted in an ambulance arriving earlier than the time at which an ambulance actually arrived;
- iii) whether using a “cross-border” ambulance to collect Andrew Logan, whilst the call was still an “urgent call”, would have been a reasonable precaution whereby Andrew Logan’s death might have been avoided;
 - iv) whether sending an ambulance which had been held back at the Clydebank depot in order to achieve a “skills mix” would have been a reasonable precaution whereby Andrew Logan’s death might have been avoided;
 - v) whether Andrew Logan, had he arrived at hospital alert and conscious with a leaking/ruptured aneurysm of the right common iliac artery, would have been offered emergency repair of the aneurysm;
 - vi) whether, had Andrew Logan arrived at hospital earlier than he did, and alert and conscious, and had been offered emergency repair of the aneurysm, there was a real and lively possibility that an operation to repair the aneurysm would have saved his life;
 - vii) whether, had the ordering authority been contacted when it should have been, once it was known that the call was going out of time, that would have been a reasonable precaution whereby Andrew Logan’s death might have been avoided;
 - viii) whether, had proper enquiry been made of Andrew Logan or his wife, during the telephone call from SAS at around 23:04 hours on 17 September 2011 as to whether his condition had changed, as required in

the protocol in force at the time, that would have been a reasonable precaution whereby Andrew Logan's death might have been avoided;

ix) whether, in 2008, following diagnosis of Andrew Logan's aneurysm of the right common iliac artery, if there had been follow-up of the diagnosis, this would have led to Andrew Logan being offered an elective repair of the aneurysm, and whether, if an elective operation to repair the aneurysm had been offered, there would have been a real and lively possibility of his death being avoided.

3. With reference to section 6(1)(d) of the Act (the defect, if any, in any system of working, which contributed to the death.....):

i) whether there was a defect in a system of work, in the form of the SAS policy of achieving a skills mix, which contributed to Andrew Logan's death;

ii) whether there was a defect in a system of work, which contributed to Andrew Logan's death, in the form of a lack of a clear protocol as to when an "urgent" four hour call should be upgraded to an emergency call;

iii) whether there was a defect in a system of work, which contributed to Andrew Logan's death, in the form of a policy of not using "cross-border" ambulances to answer urgent calls;

iv) Whether there was a defect in a system of work, namely in the system for following up the diagnosis of Andrew Logan's aneurysm in 2008, which contributed to Andrew Logan's death.

Submissions for the Crown

[25] Mrs Ross, for the Crown, began by formally offering the Crown's sincere condolences to Andrew Logan's family.

Submissions on Findings

[26] In terms of Section 6 of the Fatal Accident and Sudden Deaths Inquiry (Scotland) Act 1976, Mrs Ross invited me to consider making findings in the following terms:

Under section 6(1)(a) of the Act – where and when the death and any accident resulting in the death took place:

[27] That Andrew Logan died on 18 September 2011 at 02.56 hours at the Western Infirmary, Glasgow.

Under section 6(1)(b) of the Act – cause of death and any accident resulting in the death:

[28] That the cause of death was a ruptured aneurysm of right common iliac artery.

Under section 6(1)(c) of the Act – the reasonable precautions, if any, whereby the death and the accident resulting in the death might have been avoided:

[29] Mrs Ross submitted that the Court had heard evidence in respect of two distinct periods of time when potentially consideration could have been given to Mr Logan undergoing surgery in relation to his iliac aneurysm.

Elective surgery after being seen at Mr Rogers' clinic in June 2008

[30] The evidence was, said Mrs Ross, that after being seen by Dr Nicol at Mr Rogers'

clinic in June 2008 in connection with an aneurism of his right common iliac artery, which had been revealed by a scan undertaken for another department, surveillance of Mr Logan's aneurysm did not proceed as planned. The reasons as to why the surveillance did not proceed as planned are unknown. However, Mr Paul Rogers, Vascular Surgeon, stated in evidence that in view of Mr Logan's co-morbidities, he would have deemed him unsuitable for elective intervention. Mr Rogers was Mr Logan's Consultant and it was Mr Rogers who would have made the final decision in consultation with Mr Logan.

[31] Accordingly Mrs Ross invited me to make no determination under section 6(1)(e) in respect of this matter.

Emergency surgery on 17/18 September 2011

[32] Mrs Ross submitted that in order for it to be established that Mr Logan's death may have been avoided, it would be necessary to establish:

- 1) That there was an ambulance available earlier in the evening of 17 September 2011 to collect Mr Logan from his home address, and that it would have been reasonable to send the ambulance at such earlier time to collect him and take him to the Western Infirmary.
- 2) That on arrival at the Western Infirmary, after assessment, a decision may have been made to conduct an emergency operation in order to try and repair his ruptured aneurysm.
- 3) That there would have been sufficient time for an emergency operation to take place prior to the time when Mr Logan lost consciousness, namely just before 2am.

- 4) That there was a realistic possibility that the operation and the post-operative period would have been a success.

[33] She submitted that while there was evidence which I could accept in terms of an earlier ambulance being available, and there potentially being an operation to attempt to repair Mr Logan's ruptured aneurysm before he lost consciousness at around 2am, there was no realistic possibility that Mr Logan would have survived. The Inquiry had heard conflicting opinions from two Consultant Vascular Surgeons with regard to Mr Logan's chances of survival following an operation, but with both agreeing that it would have been a challenge to wean Mr Logan off the ventilator. However, the Inquiry had also heard from a Consultant Intensivist, and it was her opinion that if surgery had been undertaken Mr Logan would have had a prolonged stay in hospital with no hope of recovery. He would not have been able to have been taken off the ventilator.

[34] In view of that Mrs Ross invited me to make no determination under section 6(1)(c) of the Act at all.

Under section 6(1)(d) of the Act – the defect, if any, in any system of working which contributed to the death or any accident resulting in the death:

[35] Standing the evidence as to the likelihood of Mr Logan surviving the rupture of his aneurism, Mrs Ross invited me to make no determination under section 6(1)(d) of the Act.

Under section 6(1)(e) of the Act – any other facts which are relevant to the circumstances of the death:

[36] Mrs Ross submitted that, while not causative in respect of Mr Logan's death, certain matters remained relevant. Section 6(1)(e), she said, permits comment upon and where appropriate recommendations in relation to, any matter which has been legitimately examined in the course of the Inquiry as to the circumstances surrounding the death, if it appears in the public interest to make such a comment or recommendation. Accordingly, she invited me to determine as follows:

1) That on the evening of 17 September 2011 the SAS call taker supervisor should have followed the SAS protocol as contained within the SAS bulletin (Crown production 11), which was in force in 2011, in relation to contacting the ordering authority when it became apparent that the 4 hour time frame within which the ambulance was due to arrive at Mr Logan's home could not be met. Thereafter, following the call to the ordering authority, Mr Logan should have been contacted and his condition should have been reassessed. Mrs Ross submitted that reinforcement of the SAS protocol may be beneficial.

2) That it would have been best practice for an RESG (a computer process to list the ambulances available for the call, according to distance from the patient's location) to have been performed earlier in the evening than it was, in order to identify a suitable resource. That an RESG would have identified that the ambulance 5190 at Clydebank Station was available to collect Mr Logan prior to the expiry of the 4 hour period at 10:39pm. Mrs Ross submitted that reinforcement of best practice in relation to the RESG function may be beneficial.

3) That formal written guidance should be issued to SAS personnel in respect of how a "skills mix" of ambulance personnel should be achieved. The Inquiry had heard evidence that a skills mix of a paramedic and a technician on an ambulance

is best practice. However the issue of whether it was best practice to organise a skills mix during the course of a busy shift, which involved keeping an ambulance off the road when there was an outstanding call, had been explored during the Inquiry. Evidence had been led that there was no written guidance or policy in relation to how best to achieve a skills mix, and the independent ambulance expert called by the Crown had expressed the view that a SAS policy or procedure describing how a skills mix should be achieved was needed. Mrs Ross submitted that the issuing of such formal guidance may be beneficial.

4) That there should be clarification by SAS to its Control Room staff of its policy in relation to the use of “cross-border” ambulances for urgent calls. (The evidence was that in 2011 the SAS Ambulance Call Centre in Cardonald dealt with the West of Scotland, which was divided into a number of areas, each of which had its own ambulances – all ambulances were available for emergency calls throughout the West of Scotland, and the issue was as to in what circumstances an ambulance from one area might be sent to collect a patient in another area on an urgent, as opposed to emergency, call, i.e. cross-border). The Inquiry had heard evidence that in 2011 it was not common practice, and may only have been in exceptional circumstances, that cross border ambulances were dispatched to collect urgent calls. In 2011 there was no written policy in respect of the use of cross border ambulances for urgent calls. Witnesses had given conflicting accounts as to when it may be appropriate to dispatch cross border ambulances for urgent calls. Mrs Ross submitted that clarification of SAS policy to Control Room staff in relation to cross border ambulances attending urgent calls may be beneficial.

5) That in the circumstance of a skills mix taking place, and either a technician or a paramedic being transferred to a different ambulance, then on the basis that the ambulance and equipment has already been checked, it is not necessary for a further full 30 minute check of the vehicle and the equipment to take place.

6) That in cases of acute abdominal pain, a 2 hour response time for an ambulance is likely to be the most appropriate request for an ambulance from an Out of Hours GP. The evidence was that the Clinical Director of Greater Glasgow and Clyde Out of Hours Service had disseminated guidance through a Governance newsletter on this issue.

[37] During the course of her submissions, Mrs Ross accepted that the evidence was insufficient for any determination to be made under section 6(1)(e) in respect of 5) above, relating to the time required to check an ambulance after a skills mix had taken place. Accordingly she withdrew her invitation to me in respect of this matter.

[38] She also accepted, in respect of 6) above (the issue of what response time should be requested by an out of hours GP in respect of acute abdominal pain) that the evidence did not support a finding that a two hour response time for an ambulance is likely to be the most appropriate request for an ambulance from an out of hours GP in the case of acute abdominal pain. She accepted that the thrust of the evidence was that guidance had been disseminated by the Clinical Director of the Out of Hours Service, through a governance newsletter, to the effect that in the case of acute abdominal pain GPs should consider a response time of one or two hours. She acknowledged that Dr Gaw's evidence had been, however, that in each individual case it remained the decision of the GP in question, exercising his clinical judgement. He also had given evidence, unchallenged, that in Mr Logan's case he too might have

ordered an ambulance within four hours. His evidence was that it remained common for 4 hour ambulances to be ordered, and that it was important not to interfere with the clinical judgement of the individual GP. There would be cases where a 4 hour ambulance remained the appropriate decision. Any guidance suggesting that GPs should always order an ambulance within 1 or 2 hours would therefore be counter-productive. She agreed, therefore, that her submission at 6) above should be regarded as amended, to the effect that what she was now seeking was a determination that in the case of acute abdominal pain the out of hours GP should consider an ambulance response time of 1 or 2 hours.

Submissions for the family of Andrew Logan

Legal Framework

[39] Mr Cahill began by setting out the statutory framework for the Inquiry, by reference to the Act.

[40] He submitted that if the Court was to make a finding in terms of Section 6(1)(c) of the Act then the Court would have to be satisfied that a reasonable precaution might have avoided the death. In relation to this subsection he referred to the determination in the *Fatal Accident Inquiry into the death of James McAlpine, 17 January 1986*, in which Sheriff Kearney observed:-

“In relation to making a finding as to the reasonable precautions, if any, whereby the death and any accident resulting in death might have been avoided (Section 6(1)(c)), it is clearly not necessary for the Court to be satisfied that the proposed precaution would have, in fact, avoided the accident or the death, only that it might have done, but the Court must, as well as being satisfied that precaution might have prevented the accident or death, be satisfied that the precaution was a reasonable one.”

Sheriff Kearney continued:-

“The phrase “might have been avoided” is a wide one which has not, so far as I am aware, been the subject of judicial interpretation. It means less than “would on the balance of probabilities have been avoided” and rather directs one’s mind to the direction of lively possibilities”.

[41] Further, in the *Fatal Accident Inquiry into the death of Sharman Weir*, Glasgow Sheriff Court, 23 January 2003, Sheriff Fiona Reith, QC considered the question of looking back at events for the purposes of identifying reasonable precautions:-

“In my opinion, the purpose of a Fatal Accident Inquiry is to look back, as at the date of the Inquiry, to determine what can now be seen as reasonable precautions, if any, whereby the death might have been avoided and any other facts which are relevant to the circumstances of the death. The purpose of any conclusions drawn is to assist those legitimately interested in the circumstances of the death to look to the future. They, armed with the benefit of hindsight, the evidence led at the Inquiry, and the determination of the Inquiry, may be persuaded to take steps to prevent any reoccurrence of such deaths in the future”.

[42] Mr Cahill went on to submit that on the basis of the foregoing the purpose of the Fatal Accident Inquiry is, with the benefit of hindsight, to identify reasonable precautions which might have avoided the death, and therefore may avoid deaths in similar circumstances in the future. The reasonable precaution must be such that it “might” have avoided the death. There must be evidence of at least “realistic possibility” of avoiding the death by a reasonable precaution.

[43] With regard to whether or not the Court should make any finding in terms of Section 6(1)(e), Mr Cahill said that Sheriff Kearney in the *Fatal Accident Inquiry into the death of James McAlpine* had observed:

“The provisions of Section 6(1)(e) are widely stated and, in my view, entitle and indeed oblige the Court to comment on and, where appropriate, make recommendations in relation to, any matter which has been legitimately examined in the course of the Inquiry as to the circumstances surrounding the death if it appears to be in the public interest to make such a comment or recommendation.”

Submissions on Findings

[44] Mr Cahill said that in preparing his own submissions he had had the benefit of considering submissions prepared on behalf of the Crown.

[45] He then set out the findings which he submitted I should make under the various subsections of section 6 of the Act, as follows:

Section 6(1)(a):

[46] That Andrew Logan died on 18 September 2011 at 02:56 hours at the Western Infirmary Glasgow.

Section 6(1)(b):

[47] That the cause of death was a ruptured aneurysm of his right common iliac artery.

Section 6(1)(c):

[48] Mr Cahill submitted that no determination should be made under this subsection.

Section 6(1)(d):

[49] Again, Mr Cahill suggested no determination under this subsection.

Section 6(1)(e):

[50] Mr Cahill adopted the Crown's submissions under this section, except that he did not agree that there should be any determination in line with the 6th finding

contended for by the Crown (in respect of the time frame within which an ambulance should be ordered in the case of acute abdominal pain).

Submissions for Dr Marshall and Dr McDevitt

[51] Mr Jessiman began by saying that he would like to express his sympathies to Mr Logan's family.

Legal Framework

[52] He too then set out the statutory framework for the Inquiry with reference to section 6 of the Act.

[53] Mr Jessiman submitted that the Sheriff, in considering the evidence, required to find facts proved on the balance of probabilities, in line with Ordinary Civil Rules of Procedure (section 4(7) of the Act), and that the Sheriff had to base his or her findings on the evidence which had been led at the Inquiry (*Smith v Lord Advocate* 1994 SLT 379).

[54] He referred to the case of *Black v Scott Lithgow Limited* 1990 SLT 612, where Lord President Hope stated that:

“there is no power in this section [s6(1)] to make a finding as to fault or to apportion blame...”

[55] In considering whether to make any findings in terms of Section 6(1) (c) of the Act the Sheriff was therefore not to make any findings of fault, but had to consider “the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided”.

[56] The precise wording of the sub section had, said Mr Jessiman, been scrutinised in Carmichael on *Sudden Deaths and Fatal Accident Inquiries*, 3rd edition 2005 at page 174. Carmichael comments there that:

“The precise wording of Section 6(1) (c) must be kept in mind...What is envisaged is not a “probability” but a real or lively possibility that the death might have been avoided by the reasonable precaution”.

Submissions on formal findings

[57] Mr Jessiman then turned to the findings he suggested under the relevant subsections of section 6 of the Act, as follows:

Section 6(1)(a) of the Act

[58] That Andrew Logan, date of birth 13/03/1953, died on 18 September 2011 at approximately 2.50 hours within the Western Infirmary, Dumbarton Road, Glasgow (per the Joint Minute of Admissions).

Section 6(1)(b) of the Act

[59] That the cause of death was a ruptured aneurysm of the right common iliac artery (per the post mortem report, which formed Crown Production number 1, and the Joint Minute of Admissions).

Section 6(1)(c), (d) and (e) of the Act

[60] Mr Jessiman submitted that there was no evidence to support findings in terms of these subsections in relation to the actings of either Dr McDevitt or Dr Marshall.

Summary of Evidence

[61] Mr Jessiman then summarised the evidence.

Relevant evidence of events in 2008

[62] Mr Paul Rogers, Consultant vascular surgeon gave evidence that Mr Logan would not have been considered for elective aneurysm repair. In short his view was that “elective surgery had a very high risk of killing him”. There was no evidence to contradict that view. It is quite clear therefore that there was no evidence to suggest that had Mr Logan been followed up by the vascular surgeons he would have had elective surgery.

[63] There was no information to suggest that Dr McDevitt or the GP practice acted in any way unreasonably or that there were any reasonable precautions relevant to the GP practice. Dr McDevitt did not have a consultation with Mr Logan in relation to the aneurysm either in 2008 or subsequently, the only mention to him being in a passing conversation with Mr Logan.

Relevant evidence of events in 2011

[64] Dr Marshall attended promptly to Mr Logan following a call to NHS 24 at around 6.30pm on 17 September 2011. Dr Marshall examined Mr Logan and diagnosed a possible obstructed hernia of the right groin and arranged for an ambulance to take him to hospital within 4 hours. Dr Marshall considered and was still of the view that a 4 hour ambulance was reasonable. His usual practice in such cases was to order a 4 hour ambulance. Dr Marshall was not aware Mr Logan had

previously had an aneurysm diagnosed. Mrs Logan gave evidence that after Dr Marshall left Mr Logan was “fine”.

[65] Dr Norman Gaw’s evidence was helpful in considering whether Dr Marshall’s actions were reasonable in all the circumstances. He stated that it would have been common practice to order a 4 hour ambulance for a patient with an intermittent abdominal problem. He continued that in 2011 it would have been reasonable to order a 4 hour ambulance, that Dr Marshall’s decision was reasonable and that he, Dr Gaw, might very well have done the same. Dr Gaw’s evidence was clear that it was a reasonable decision on Dr Marshall’s part to order a 4 hour ambulance, and the Court only heard from these 2 GPs.

[66] While a 1 hour or 2 hour ambulance may also have been reasonable, Mr Jessiman urged caution in relation to the use of hindsight. This was very much a case where the Court should not use knowledge of the rupture of the aneurism which Mr Logan actually had to speculate on what else might have been done. Dr Marshall’s actions were reasonable according to the only GP evidence. If the Court were considering whether to make any finding under section 6(1)(c) or comment in the note (Mr Jessiman’s submission being that it should not) then, he submitted, the Court should comment that there was no criticism of Dr Marshall in this regard.

Causation

[67] In relation to the issue of causation, Mr Jessiman made the following submissions:

- (1) For a finding that a 1 or 2 hour ambulance as opposed to a 4 hour ambulance might have avoided the death, there would have to have been

some exploration of what the difference would have been (*Smith v Lord Advocate*) – In Mr Jessiman’s submission there would have been no difference to the eventual outcome.

(2) The evidence from Mr Rogers was that he would not have operated in the event of Mr Logan being admitted as an emergency. While Mr Chalmers gave evidence that he would have operated, he gave evidence that if a patient had been turned down for elective surgery then that was a reason not to proceed. It is quite clear from Mr Rogers’ earlier evidence that he would have turned Mr Logan down for elective surgery.

(3) Dr McLennan gave evidence that it would have been “...impossible to wean him off the ventilator even if he got to the stage of surgery and survived surgery...”

[68] In the event of a less than 4 hour ambulance having been called, there was no evidence regarding what would have happened differently. The evidence was that there was no real or lively possibility that calling a less than 4 hour ambulance might have avoided the death.

Summary

[69] In summary, Mr Jessiman submitted that it remained a matter for the clinical judgement of each doctor as to the length of ambulance which should be ordered and accordingly the Court should be extremely hesitant about making any formal finding in that respect. A comment in the body of the note issued with the determination may well be more appropriate, though it should be stressed that there was no criticism of Dr Marshall in that regard, given the comments of Dr Gaw. A formal

finding should be issued in terms of section 6(1)(a) and (b) of the Act. Mr Jessiman aligned himself with the submissions he understood were to be made by Mr Dawson in respect of the sixth matter upon which the Crown invited me to make a determination under section 6(1)(e) of the Act.

Submissions for Greater Glasgow Health Board

General submission to the Court

[70] Mr Dawson submitted that the Greater Glasgow Health Board (“the Board”) was responsible for two aspects of the medical care of Mr Logan about which the Inquiry heard evidence, namely (a) the vascular team under consultant vascular surgeon Mr Paul Rogers, one of whom saw Mr Logan at Gartnavel Hospital on 11 June 2008 (“the vascular element”) and (b) the Greater Glasgow & Clyde out of hours general practitioner service which played a part in his care on the evening of 17 September 2011 (“the out of hours element”). However, he said, the contractual position of a general practitioner providing out of hours care within the service, such as Dr Marshall in this case, was that of an independent contractor.

[71] Mr Dawson submitted that as far as the Board’s responsibilities in connection with the death of Mr Andrew Logan were concerned, the Court should make formal findings in terms of section 6(1)(a) and (b) of the Act only. He submitted that the evidence revealed no defects in any system of working which were the Board’s responsibility. Moreover, the evidence showed that nothing which was within the responsibilities of the Board at the material time could have been done which would have given rise to a real and lively possibility of Mr Logan surviving, far less that any

such thing could have been done which, on balance, would have avoided the death. Similarly, the evidence did not support there being any reasonable precautions which could have been put in place relating to matters within the Board's responsibility and control. He submitted that there was no basis for any findings relating to the Board under section 6(1)(e) of the Act.

Matters for the Court's determination

[72] In terms of section 6 of the 1976 Act, Mr Dawson proposed that the following findings be made as regards the Board's responsibilities in connection with matters relevant to the death of Mr Logan:

(a) Where and when the death and any accident resulting in the death took place

[73] That Mr Logan died in the Western Infirmary, Glasgow at 02.56 hours on 18 September 2011.

(b) The cause or causes of such death and any accident resulting in the death

[74] That Mr Logan died as a result of a rupture of an aneurysm in his right common iliac artery.

(c) The reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided

[75] Mr Dawson submitted that no determination should be made under this subsection in respect of any matters falling under The Board's control. In relation to reasonable precautions the Court would have to be satisfied that any proposed precaution was a reasonable one. The phrase "might have been avoided" means less than would on a balance of probabilities have been avoided but instead "directs

one's mind in the direction of lively possibilities". He submitted that there was no evidence upon which the Court could determine that any reasonable precautions on the part of the Board might have led to the death being avoided. There was also no evidence that any precaution which might have been taken could be judged to have been a reasonable one.

The vascular element

[76] Mr Dawson said that the Inquiry heard evidence about the possibility that Mr Logan might have been followed up in the vascular clinic of Mr Rogers, which he attended on 11 June 2008, after discovery of his aneurism in a scan obtained by another department. The only evidence heard about the circumstances in which Mr Logan came not to be followed up after that clinic appointment was from Mr Rogers himself. He had never seen Mr Logan. He concluded his evidence in chief by saying that his evidence could amount to little more than speculation regarding why Mr Logan was not followed up. The details of the administrative systems within the hospital were not something he dealt with on a day to day basis. Given that the evidence had, Mr Dawson submitted, not established what happened leading to the lack of follow up, the Court could not draw any conclusions as to what precautions could reasonably have been taken to have avoided that outcome, far less the death. In any event, the Court heard no evidence as to what precautions could reasonably have been taken in this context in a busy hospital. To the extent that his speculation was of any value, Mr Rogers' evidence was predominantly to the effect that it was likely that Mr Logan himself was given some responsibility for fixing a further clinic appointment, which had not happened.

[77] Mr Dawson submitted that the Crown's submission that, on the evidence, "the reasons as to why the surveillance did not proceed as planned are unknown" was, to an extent, inaccurate. On the undisputed evidence of Mr Rogers, no decision was made that Mr Logan was suitable for surveillance, merely that he should be followed up and surveillance considered. Surveillance was therefore not planned in the sense of regular monitoring of Mr Logan's aneurysm. He submitted that a more accurate expression of the position would be that the reasons as to why Mr Logan was not followed up in the vascular clinic were unknown.

[78] In any event, Mr Dawson submitted that the Inquiry heard no evidence upon which it could be concluded that follow up of Mr Logan in the vascular clinic at Gartnavel would have made any difference to the outcome. Mr Paul Rogers was the consultant vascular surgeon under whose care Mr Logan would have been followed up. His evidence was that, in theory, the mechanism whereby follow up might have been able to make a difference to the outcome for Mr Logan was for him to have received prophylactic elective surgery on the iliac aneurysm. He gave unchallenged evidence to the effect that due to Mr Logan's other medical problems from 2008 (in particular his severe respiratory issues) it would have been extremely unlikely that he would have been offered elective surgery. His respiratory problems were chronic and were unlikely to improve. In fact, they got worse. Mr Rogers was the surgeon who would have been responsible for making that decision. No evidence was heard from Mr Chalmers on this matter. The evidence of the expert consultant vascular anaesthetist, Dr McLennan, supported the evidence of Mr Rogers, as she opined that she "almost certainly" would not have been prepared to have anaesthetised Mr Logan for such elective surgery. Evidence of research provided clear objective

support for Mr Rogers' position. Therefore, there was no evidence to support the contention that follow up might have resulted in Mr Logan's death being avoided.

[79] Mr Dawson submitted that in any event, even if Mr Logan had been given a follow up appointment in the vascular clinic of Mr Rogers:

- a) It was unlikely that Mr Logan would have ended up being assessed at any such follow up as it was unlikely (given the evidence of his record of non-attendance and his general attitude to medical treatment) that he would have attended such an appointment. It was likely that he would ultimately have been discharged from Mr Rogers' clinic.
- b) It was unlikely, even if Mr Logan had been considered as a possible candidate for elective surgery, that he would have undergone the fitness testing which was a pre-requisite for such surgery to take place, or that he would have performed sufficiently well to have passed it; and
- c) It was unlikely, even if he had been offered and had passed the testing, that Mr Logan would have agreed to undergo the surgery, as the evidence had shown that his attitude to medical treatment was generally risk averse when it came to medical or surgical intervention. On the evidence, Mr Rogers would have told him there was a possibility that the aneurism could give him trouble, but would also have told him that the majority of aneurysms do not burst, and that he should try to live normally and put it out of his mind.

The out of hours element

[80] In respect that the out of hours service had had some involvement in the care of Mr Logan on the evening of 17 September 2011, Mr Dawson submitted that there

was no evidence that anything could have been done differently or that any reasonable precautions could have been taken within the out of hours service which could have had any effect on the death occurring.

The outcome for Mr Logan

[81] Indeed, Mr Dawson submitted that there was no evidence to support the contention that anything done on the evening of 17th September could have had any impact on the outcome for Mr Logan. The Court heard evidence from Mr Paul Rogers, Mr Rod Chalmers (consultant vascular surgeon at the Royal Infirmary Edinburgh) and Dr Christina McLennan as to what they thought could have been done for Mr Logan on 17/ 18 September 2011, had he arrived at the Western Infirmary earlier than he did. These witnesses, said Mr Dawson, all agreed that in theory a patient with a ruptured aneurysm could be offered emergency repair surgery to arrest the bleeding. They all agreed that the alternative to the patient being offered such surgery was effectively death as a result of the aneurysm bleeding, the patient eventually “bleeding out”. The evidence resulted in a dispute between Mr Chalmers on the one hand and Mr Rogers and Dr McLennan on the other. Mr Chalmers was of the view that if Mr Logan had presented at hospital at around 11 to 11.30 pm on 17 September 2011, his likely mortality from the repair operation was in the region of 30 to 50%, but probably nearer 50%. This led him to give evidence to the effect that he would have operated on Mr Logan had he arrived at that time and that he at least might have survived.

[82] Mr Dawson submitted that the evidence clearly demonstrated that nothing could have been done for Mr Logan on the evening of 17/ 18 September 2011, on the following grounds:

The evidential standards to be applied

[83] Mr Dawson maintained that, in terms of section 4(1) of the Act, the evidential burden lay on the Crown to adduce evidence with regard to the circumstances of the death which is the subject of the Inquiry, and that the burden of proving the facts and circumstances attendant on the death lay with the Crown.

[84] He submitted, with reference to Section 4(7) of the Act, that, contrary to the position taken by the Crown, the Court in fact required to be satisfied of two things, namely:

- a) That, on a balance of probabilities it is likely (as a matter of fact) that Mr Logan would have been offered emergency surgery, had he been admitted earlier; and
- b) That, had he been operated on there was a real and lively possibility of him surviving.

[85] He submitted that, in this context, whether Mr Logan would have been offered emergency surgery (on which there was competing evidence) was a matter for proof by the Crown on a balance of probabilities. The two questions above were interrelated, although they were separate questions for the Court.

Whether Mr Logan would have received emergency surgery

[86] Mr Dawson submitted that, on the evidence, Mr Logan would not have been offered emergency surgery. The evidence of Mr Rogers was that he would have been unlikely to have offered that surgery. He was the only witness who was a consultant working at the Western Infirmary at the material time. His evidence should be preferred to that of Mr Chalmers. Mr Rogers gave careful evidence about the chances of such an operation being successful in Mr Logan's case, and the advantages of being able to offer a dignified death with appropriate palliative care. In essence, Mr Rogers' evidence was not challenged by Mr Chalmers, who was keen in his evidence to make it clear that he did not wish to be critical of any decision which may have been taken by a consultant vascular surgeon on the spot. Of the witnesses who gave evidence at the Inquiry, only Mr Rogers had any chance of being that person. His was the best evidence in this regard. Mr Chalmers gave evidence to the effect that vascular surgeons disagree all the time. He therefore acknowledged that there was a range of possible responses here. The factual evidence of Mr Rogers was that he would not have operated. He was not re-examined on the point either on behalf of the Crown or the family. Mr Dawson submitted that his was the best evidence. Of all the witnesses, he was the only vascular surgeon who worked at the Western infirmary. He confirmed that he had done on call emergency work there as a consultant for 24 or 25 years. His evidence was the most reliable evidence of what would have happened in that hospital. In Mr Chalmers' evidence, he consistently referred to there being different practices in different hospitals. He stressed that his vascular surgery department was the largest by far in Scotland. His experience of what would have happened there was, submitted Mr Dawson, not relevant. In the

end and taken as a whole, he was not prepared to be critical of Mr Rogers' evidence on this matter.

[87] Mr Dawson submitted that, in any event, the evidence of Mr Chalmers in this regard lacked essential evidential support and lacked logic. It lacked essential evidential support from Dr McLennan, the only anaesthetist/ intensivist who gave evidence to the Inquiry. For the Court to be satisfied that the operation would on balance have happened, it would require to be satisfied that both disciplines would have agreed to operate. Mr Logan would have needed a vascular surgeon, and an anaesthetist/ intensivist to concur that the operation should go ahead. Whereas the surgeon could veto the operation (as Mr Rogers said he would have done) a surgeon could not operate without an anaesthetist/ intensivist's willingness to participate. Mr Chalmers' evidence could not alone entitle the Court to draw the conclusion that Mr Logan was likely to have received the operation. The views of Dr McLennan and Mr Rogers were consistent with the views of others who had treated Mr Logan in the past. He had previously been assessed as high risk for a general anaesthetic, which Mr Rogers stated would have been necessary for both elective and emergency surgery. He had previously been refused a general anaesthetic for relatively very minor surgery for the excision of perianal warts. It would seem highly inconsistent with this assessment for him to have been given a general anaesthetic for such major surgery (whether elective or emergency repair). The risks of the surgery, it was stated by Dr McLennan, were bound up with his likely ability to survive the stress of the surgery (which she equated with walking on a gentle incline for the duration of the surgery), and to be weaned off the ventilator afterwards. In a well-reasoned assessment, Dr McLennan (as Mr Rogers had done) relied upon the evidence elicited

from Mr Logan in the past about his exercise tolerance which, Mr Dawson submitted, was likely to have been at least similar to what he would have told the doctors in September 2011. It was likely to have made him appear far short of the standard required. Both Mr Rogers and Dr McLennan had reached the view that as he had become dependent on home oxygen, the likelihood of him becoming similarly dependent on the ventilator was considerable.

[88] Mr Dawson submitted further, as follows:

- a) Mr Logan's history of ischaemic heart disease was a poor prognostic indicator for surgery. This was something which was clear on the face of the records and was elicited from the patient by Dr Nicol in 2008.
- b) His weight was, according to both Dr McLennan and Mr Rogers, a poor prognostic indicator for surgery. It indicated a general lack of fitness but also would have rendered the operative intervention more problematic, according to Mr Rogers.
- c) His history of raised creatinine levels in acute medical situations indicated that his kidneys were unlikely to have coped well with the surgery, according to Dr McLennan.
- d) His lifelong smoking history was a poor prognostic indicator for surgery. Despite entries in the medical records to the contrary, Mrs Logan confirmed in evidence that there had been only one 3 or 4 month period in his life when Mr Logan had stopped smoking.
- e) His history of high blood pressure was also a poor prognostic indicator for surgery.

f) His history of deep vein thrombosis was a poor prognostic indicator for surgery.

g) As Dr McLennan stated, his history of infective exacerbations of his COPD and cellulitis indicated a propensity towards infection, and were poor prognostic indicators for surgery.

[89] As far as logic was concerned, Mr Chalmers' position was, said Mr Dawson, not convincing. He stated that in his unit, patients who were refused elective surgery were automatically refused emergency surgery in the event of rupture. The only evidence which the Inquiry heard on Mr Logan's suitability for elective surgery was from Mr Rogers and Dr McLennan, both of whom would have deemed him to be unfit for that intervention. Therefore, on the evidence, it was not sustainable that Mr Chalmers' position should be accepted when, on the unchallenged evidence, Mr Logan would have been deemed unfit for emergency surgery in Mr Chalmers' own unit. Further, Mr Chalmers' evidence was based on a strict application of the Hartmann scale, which Mr Dawson dealt with later in his submission.

[90] Further, it would have been necessary to have obtained Mr Logan's informed consent to the emergency procedure. On any view, this was likely to have involved discussions of the high mortality rate associated with the operation (even for relatively fit patients) and the unpleasant death that Mr Rogers described as the outcome if that risk materialised. That would have been something which would have been distressing to Mr Logan's family. Mrs Logan described Mr Logan as being someone who did not like her to worry or to put her under undue pressure, which is why she was given only limited information about his various medical problems. Mr

Dawson submitted in light of the risks that it is likely that Mr Logan would not in any event have given his consent to the surgery.

[91] To the extent that there was any factual dispute between the medical records and the evidence given by members of Mr Logan's family regarding the extent of Mr Logan's co-morbidities at any time, Mr Dawson submitted as follows:

- The evidence of Mrs Logan and Mr Mackay in this regard was unreliable and, in any event considerably less reliable than the records, the entries in which often emanated from Mr Logan himself. The past entries and the history from Mr Logan were likely to have been the material upon which any treatment decisions would have been based.
- Mrs Logan stated that there were aspects of Mr Logan's medical history she did not know about. There were numerous aspects of his medical history put to her in cross examination that she did not know about. She volunteered that Mr Logan would not share things with him as he did not want to worry her. Her ability to comment on the precise extent of his disabilities was limited further by the fact that she would tend to be out at work all day when Mr Logan would remain at home. Mr Mackay accepted that he did not ever speak to Mr Logan about their respective health issues. He deferred to the doctors on the state of Mr Logan's health. He confirmed that on the rare occasions when he accompanied Mr Logan to Scotland football matches, they would not take the stairs due to their medical complaints.
- As regards Mr Logan's exercise tolerance, the family's evidence was unreliable. Mrs Logan gave evidence of his walking ability as being 100 to 200 yards without a rest, but in cross examination stated that that had been a "big

estimation” on her part. She also stated that everything was done at a much slower pace by Mr Logan, that it took him double the time it would take others to walk, that he used a stick and that he had to keep taking rests. Her evidence in this regard was not time specific. In any event, she accepted in re-examination by her solicitor that she did not walk with him, that she did not ever watch him walk, and that they went everywhere in the car.

[92] As far as the rigorous standards required for surgery commented upon by Dr McLennan were concerned, none of the family’s evidence came close to suggesting that Mr Logan would have met the high standard required. In any event, had Mr Logan been asked about his exercise tolerance (which he would have been) his account was likely to have been more akin to what he had previously volunteered to other doctors, as recorded in the notes.

The timing

[93] The Crown accepted, said Mr Dawson, that the Court required to be satisfied “that there was sufficient time for an emergency operation to take place prior to Mr Logan losing consciousness at just before 2am”. The Court would require to conclude that on a balance of probabilities an earlier admission to hospital would have resulted in him being operated on before his death. Mr Dawson submitted that the evidence did not entitle the Court to draw this conclusion. The only scenario which was put to the relevant witnesses was the hypothesis that he might have arrived in the hospital at between 11 and 11.30pm on 17 September 2011. The evidence of the Crown vascular expert Mr Chalmers was to the effect that he would have needed to have had the aortic clamp applied by 1.45am for Mr Logan to have stood a chance of

survival. This meant a time period of between 2 hours 15 minutes and 2 hours 45 minutes between arrival at the hospital and the clamp being applied. The evidence in this regard did not enable the Court to conclude that it was likely that the clamp would have been applied within this time frame, on the following grounds:

- a) One of the keys to this aspect of the assessment, Mr Dawson suggested, was that there was no evidence to support the contention that Mr Logan would have been admitted with anything other than his actual admission diagnosis, namely a putative obstructed hernia. As Mr Rogers stated in evidence, the “main consideration” in the assessment of the timing was determining how long it would have taken for a suspicion that the diagnosis was wrong, and for a putative diagnosis of ruptured or leaking aneurysm to be reached. He said that it was not possible to say how long that would have taken and that it would realistically have taken (as a best case scenario) 2 hours for the required steps to be taken thereafter. Mr Dawson maintained that there was a lack of factual evidence as to how long it would have taken for the correct putative diagnosis to be reached, which meant that the Court could not be satisfied in this regard. Further, Dr Ray’s evidence was to the effect that Mr Logan should have been seen within an hour after admission by the junior surgical doctor. This appeared to be the aim but, of course, said Mr Dawson, this was a Saturday night. Dr Ray also then said that the general surgical registrar, who would be at home and would take 30 minutes to come in, may have to be contacted. She was not qualified to opine on what the reaction of that junior doctor or the registrar would have been. This postulated hour long period was not factored into Mr Chalmers’ assessment. Even this would

result in an optimum time of 3 hours, which would have been too long in this case. That of course, said Mr Dawson, did not factor in the time it may have taken the junior surgical doctor to conduct the assessment and reach the putative diagnosis of ruptured aneurysm, or involve the surgical registrar. Dr Ray was also of the view that it would have taken at least an hour to get the CT result, which was considerably more optimistic than Mr Chalmers appeared to be suggesting.

- b) All relevant witnesses were of the view that a number of medical professionals would have been involved in the assessment of Mr Logan's condition. Dr Ray gave evidence that surgical GP referrals came into the Western through the Accident and Emergency Department, though they would not normally be seen by the A&E team, of which she was a part. Mr Logan would have been triaged by an A&E nurse. The assessment of Mr Logan would have involved at least a junior surgical doctor. No evidence from any such doctor was heard. Dr Ray had never worked in a surgical team. On Mr Chalmers' assessment such a doctor, he assumed, would maybe have had vascular experience. He was contemplating that Mr Logan would have been seen by a middle grade surgical doctor with 3 or 4 years' experience. Even he admitted that his evidence in this regard was "a bit speculative". This was the basis upon which he opined that the junior surgical doctor would be expected to have detected the aneurysm by palpation, even though it was admittedly a rare diagnosis (the experienced pathologist Dr Turner had never come across one as a cause of death, nor had Dr Marshall), Mr Logan was a heavy man (107 kg in the post mortem) and Dr

Marshall had not detected it (though he was an experienced GP, had worked as an accident and emergency doctor in Stobhill, and the Glasgow Royal Infirmary, and had taught students about palpation techniques). Indeed Dr Marshall stated that no matter how he examined him he thought that there was no chance of him picking up the aneurysm, and that he had spoken to a number of colleagues about that. There was no factual evidence to validate Mr Chalmers' assumption.

- c) Mr Rogers gave unchallenged evidence to the effect that the views of the family would have been likely to have been obtained. No evidence was given by any family member as to what their likely reaction would have been on any hypothesised scenario such as that with which they might have been presented for their views on the night. The time that this would have taken would require to be factored into the assessment. The Court had no evidence to enable this element to be factored in.
- d) No evidence was led about the resources actually available in the hospital that evening, whether theatres would have been available, whether doctors were involved with other patients, etc.

Whether the surgery would have had a real and lively chance of saving Mr Logan's life

[94] Mr Dawson submitted, giving a detailed analysis of the evidence, that the evidence in this regard of Mr Rogers and Dr McLennan should be preferred to that of Mr Chalmers, who again stood alone on this issue. All three experts agreed that the main (though not only) issue for Mr Logan would have been his poor respiratory

function and his ability to be weaned off the ventilator post operatively. The evidence of Dr McLennan was the most expert in this regard, given that she dealt with operative respiration and the post-operative recovery period. The coincidence between her evidence and that of Mr Rogers in this regard was striking, with both independently coming to the view that Mr Logan's poor respiratory function would have resulted in his having very little, if any, chance of surviving the considerable stress of surgery and its aftermath, which had a high mortality rate (all accepted) even in relatively fit patients.

[95] As far as the link between the hypothesised Hartmann score referred to by Mr Chalmers and mortality was concerned, Mr Dawson submitted that Mr Chalmers' analysis lacked substance. He cited no research basis for his conclusions in this regard, either in his reports or in evidence. Given the roughness of the scoring system it seemed hardly likely that any such accurate predictive value could be claimed, in particular as the main negative factor (severely impaired respiratory function) did not feature in the scoring system. Dr McLennan's assessment of the key aspect of Mr Logan's respiratory function was more expert and more thorough than that of Mr Chalmers. In agreement with Mr Rogers, her assessment led her to conclude that Mr Logan had become increasingly dependent on oxygen over the years and that his lung function had clearly diminished to worryingly low levels (0.56 FEV 1). Mrs Logan gave evidence to the effect that Mr Logan's breathing improved when he used home oxygen and that when he did not use it he would be breathless. She also conceded in cross examination that she was not able to tell how many hours he used the oxygen for because she was not there at the time. This led Dr McLennan to conclude that he would be incapable of surviving the combined insult

of the operation and the required post-operative intensive care period. Mr Dawson maintained that the evidence of Mr Rogers and Dr McLennan should be accepted in this regard. He also submitted that Mr Chalmers' evidence about the nature and extent of Mr Logan's respiratory problems at the time of his death should not be accepted. He placed reliance on the fact that Mr Logan was receiving a low dose of home oxygen as indicating something about the severity of his respiratory problems. Dr McDevitt had already given evidence that this was because of his type 2 respiratory failure, which meant that he could not receive a higher dose. This was confirmed by the anaesthetist Dr McLennan.

Conclusion - the out of hours element

[96] Mr Dawson submitted that it should be determined in respect of the out of hours service being involved in the care of Mr Logan on the evening of 17 September 2011 that the only evidence of the service's involvement was the allocation of the request for assistance from NHS 24 to Dr Marshall, who attended Mr Logan within the requested 2 hour timescale. There was no evidence that anything could have been done by the service which could have influenced the outcome or resulted in the death being avoided. In any event, the evidence was to the effect that nothing could have been done to save Mr Logan that evening anyway.

(d) The defects, if any, in any system of working which contributed to the death or any accident resulting in the death

[97] Mr Dawson submitted on behalf of the Board that no determination should be made under this sub-section in respect of matters falling under its control.

The vascular element

[98] As he had earlier submitted, he maintained that there was no reliable evidence before the Inquiry as to why it was that Mr Logan was lost to follow up in the vascular department of Gartnavel Hospital in 2008. It could not be deduced therefore that any defect in any system of work there was in any way responsible for the failure of him being so followed up. The fact that that he was not followed up was not axiomatic of any defect in the hospital systems. The system described by Mr Rogers was an appropriate one.

The out of hours element

[99] As he had already suggested, Mr Dawson maintained that there was no evidence before the Inquiry as to any defect in any system of work within the out of hours service which had any connection with the delay which resulted in Mr Logan getting to hospital later than might have been expected in September 2011. It could not be deduced therefore that any systemic defect there was in any way responsible for his death.

Causation

[100] Mr Dawson referred to his earlier submissions on causation regarding both the vascular element and the out of hours element. His assessment of that evidence applied, he said, *a fortiori* to the Court's consideration under sub-section (d) as it would be necessary, for a finding to be made under this head, for the Court to be satisfied that any defect in any system of working had, on a balance of probabilities, contributed to the death. That, he submitted, was not possible on the evidence.

(e) Any other facts which are relevant to the circumstances of the death

[101] On behalf of the Board Mr Dawson submitted that no determination should be made under this sub-section in respect of matters falling under its control. Nor was there any basis for any such matter to be commented upon in any note which the Court might issue. There was no evidence which would entitle the Court to make any such determination. Further, he submitted that given the historical nature of the matters in connection with which the Inquiry heard evidence, it would be unlikely that any such determination would be of much current value and hence it would be unlikely to be in the public interest. The fact that the Inquiry examined events which occurred so long ago affected not only the reliability of the evidence heard, but also its current relevance.

The submissions by the Crown

[102] Mr Dawson went on to deal with the submissions made on behalf of the Crown under this sub-section. In this regard, the Crown had submitted that “section 6(1)(e) permits comment upon and where appropriate recommendations in relation to, any matter which has been legitimately examined in the course of the Inquiry as to the circumstances surrounding the death, if it appears in the public interest to make such a comment or recommendation”. This formulation appeared, said Mr Dawson, to emanate from the determination by Sheriff W Holligan in the *Inquiry into the death of John Kelly*.

[103] The Crown had made a submission relating to the ordering of ambulances in Glasgow in the out of hours period, as follows:

That the following should be determined under section 6(1)(e) of the Act:

“That in cases of acute abdominal pain, a two hour response time for an ambulance is likely to be the most appropriate request for an ambulance from an Out of Hours GP. The Clinical Director of Greater Glasgow and Clyde Out of Hours Service has disseminated guidance through a Governance newsletter on this issue.”

[104] It was Mr Dawson’s submission that this was not a determination which should be made by the Court for the following reasons:

- a) Such a determination would be unnecessary in the public interest, in light of the guidance issued by the Clinical Director of the out of hours service referred to by the Crown. His unchallenged evidence was that, to his satisfaction, the process of reflection on this area and the dissemination of the guidance had already changed practice where necessary.
- b) Such a determination would, Mr Dawson submitted, misunderstand the intended effect of the guidance disseminated by the Clinical Director of the out of hours service, Dr Gaw, and his evidence in that regard. Dr Gaw stated on a number of occasions in his evidence that his guidance required not to be prescriptive. Such a determination would fail to take account of his unchallenged evidence to the effect that he knew that “it is still common practice in many cases of abdominal pain to order a 4 hour ambulance, and that in these cases that is appropriate, and it remains with the individual doctor to make that decision”. He also stated that “we do not want doctors to revert to ordering within 1 or 2 hour ambulances for every case, as that would be counterproductive”. The evidence was that the timescales attached to ambulances were fixed by the Scottish Ambulance Service. Where it may be appropriate for an ambulance other than a 2 hour ambulance to be ordered

in a particular case of acute abdominal pain, it would not be beneficial for the full range of options not to be available to the GP.

- c) Such a determination would underestimate the importance of the clinical independence of the out of hours GP in attendance with the patient. Mr Dawson submitted that a determination of this nature would run the risk of the clinical independence of GPs being compromised. Out of hours GPs to whom such a determination were communicated (in addition to the guidance issued by the Clinical Director) might feel the need for a 2 hour ambulance to be ordered in circumstances where it may not be clinically indicated. If the Court were considering making a determination which would touch upon the clinical judgement of medical professionals (as this would) Mr Dawson submitted that the observations of Sheriff Stephen (now Sheriff Principal Stephen) in her determination in the *Inquiry into the death of Lynsey Myles* issued on 27th February 2004, were instructive.

Sheriff Stephen had stated:

"Again lawyers should be slow to comment upon medical practice, far less criticise medical practice, unless there is clear appropriate testimony which challenges the treatment a patient receives. The view I take of this matter is that for precautions to be reasonable they have to be reasonable given the whole circumstances surrounding the patient and treatment of the patient with particular reference to the treating physician and if appropriate his junior medical staff. Before I can find a precaution to be reasonable in the context of a medical issue, there must either be an admission by the treating doctor that he failed to take a precaution or course of action which he clearly ought to have taken, or took a course of action which, in the exercise of ordinary care, ought not to have been taken. Failing that there would require to be established by independent evidence the manner in which the doctor in a particular area of expertise, and with the particular experience, ought to have acted. This clearly requires there to be a standard by which the actions of doctors are judged. As I have said it is wrong for lawyers to be quick to criticise doctors without such justification..."

Further, said Mr Dawson, Sheriff Peter Braid in his determination in the *Inquiry into the death of Marion Bellfield issued on 28th April 2011* made the following comments:

"That is not to say that every single thing which might have been done and which might have avoided the death should, if it was a reasonable step to have taken, make its way into a finding under Section 6(1)(c). Not only would that not be helpful in avoiding future deaths, but it would involve placing an unjustifiably wide construction on the word "precaution". Whatever that word means, it must place some limit on the sort of acts or events which should be included in a Section 6(1)(c) finding. The natural meaning of "precaution" is an action or measure taken beforehand against a possible danger or risk. Further, since one purpose of a fatal accident inquiry is to inform those with an interest of what precautions should be taken in the future, a finding under Section 6(1)(c) must carry with it the implication that the precaution ought, with the benefit of hindsight, to have been taken in the case which resulted in the death, albeit without any necessary implication that the failure to take it was negligent. That being so, I agree that when one has a situation which solely involves the exercise of clinical judgement, where a range of reasonable actions might be taken, and the choice as to which to take rests on the skill and experience of a doctor based upon such information as is available to him at the time, and the doctor happens to choose a course which results in death, it would be wrong to hold that the selection of another option within the range, which might have prevented the death, was a reasonable precaution which ought to have been taken. Not only does that involve straining the meaning of precaution, but such a finding would be of no real practical benefit to others in the future. **A fatal accident inquiry cannot prescribe how doctors and nurses should exercise their judgement**". (emphasis added by Mr Dawson)

In the instant case the evidence of Dr Gaw (not an independent expert witness), said Mr Dawson, was not critical of the decision of Dr Marshall in ordering a 4 hour ambulance. His assessment was that that was a clinical option which was one of a range of acceptable clinical options.

- d) Mr Dawson submitted that the Court should take care that the FAI be confined to the specific (the circumstances of the death being inquired into) and not stray into the general. It was Mr Dawson's view that a determination

such as that sought by the Crown would run the risk of straying into the realms of the general.

- e) Further, the proposed determination did not take account of the fact that the guidance spoken to by Dr Gaw also referred to the possibility of a 1 hour ambulance being appropriate in certain cases of suspected obstructed hernia. Indeed, there may be circumstances in which the presentation would merit an emergency ambulance. There was, said Mr Dawson, a huge range of variable presentations within the umbrella of “acute abdominal pain”. This went to show that the determination sought would really not be very helpful.
- f) It would not be in the public interest for such a determination to be made by the Court.

Submissions for the Scottish Ambulance Service

[105] Mr Khurana began by setting out the legal framework for the Inquiry, with reference to section 6 of the Act.

[106] With regard to subsection 6(1)(a) of the Act, Mr Khurana referred to the relevant details as recorded in one of the Joint Minutes of Agreement lodged in Court.

[107] With regard to subsection 6(1)(b) of the Act Mr Khurana submitted that the cause of death was:

Ruptured aneurysm of the right common iliac artery.

[108] With regard to subsections 6(1)(c), 6(1)(d) and 6(1)(e) of the Act, it was Mr Khurana’s position that it is well settled that it is not the purpose of a fatal accident inquiry to determine any question of civil or criminal fault or liability. In this

connection he referred to the cases of *Black -v- Scott Lithgow Limited* 1990 SLT 612, (Lord President Hope at page 615G-H) and *FAI into the death of Steven Alexander Dekker* 2000 SCLR 1087, (Sheriff Dickson at page 1093B-E).

[109] With regard to section 6(1)(d), (the defects, if any, in any system of working which contributed to the death or any accident resulting in the death), Mr Khurana referred to Carmichael, *"Sudden deaths and Fatal Accident Inquiries"*, third edition, 2005, page 174.

[110] He submitted that it was a matter for me whether or not to make any findings in my determination in terms of subsections 6(1)(c), (d) or (e), but submitted that on the evidence before the Court, there should be only a formal determination: in other words, that there be no findings under 6(1)(c), (d) or (e).

[111] In short, he suggested that no proper causal link had been established. This was not intended to be any criticism of the evidence led. In his submission, no causal link could have been demonstrated standing the evidence. In these circumstances a formal determination was the appropriate one.

Analysis of the evidence

[112] For findings under either section 6(1)(c) or 6(1)(d) Mr Khurana submitted that there had to be a causal link. In order for a finding to be made under section 6(1)(c) he submitted that two requirements had to be met. The precaution had to be a reasonable one in the circumstances, and also one that had a real possibility of preventing the death. For a finding to be made under section 6(1)(d) the causal link required to be proved on the balance of probabilities. It was his submission that a consideration of what constituted a reasonable precaution in the circumstances of

this case should not be taken in isolation. In this Fatal Accident Inquiry the word “reasonable” had to be placed in an ambulance dispatch setting. Any precaution being considered by the Court had to be reasonable by reference to a logical analysis of evidence from an appropriate expert. No such expert gave evidence during the course of the Inquiry.

[113] On the facts and circumstances of this inquiry Mr Khurana suggested that it would not be right to hold that a precaution, by way of someone following a particular course of action, instead of the one he did, was reasonable simply because another individual would have followed that course. He submitted that if this analysis was not correct, then in any situation involving a choice between two or more reasonable options the role of the decision maker would be an impossible one.

[114] In Mr Khurana’s submission, care had to be taken about the weight given to the expert evidence. In considering any expert evidence weight should be placed on the explanations advanced by the expert of the reasons for holding his or her opinion. It was the reasoning and not the conclusion that carried weight. The reasoning required to be logical in the Court’s assessment. In other words, the opinion evidence should be capable of withstanding logical analysis. In addition and, importantly, fairness dictated that all material matters should be put to the relevant factual witnesses.

Causation

[115] Mr Khurana said that it was his understanding that all parties accepted the independent expert evidence of Dr McLennan. She was the only intensivist and anaesthetist to give evidence. Her unchallenged opinion was that Mr Logan would

not have survived, irrespective of when he had arrived at the Western Infirmary on the night of 17 September 2011 or the early hours of 18 September 2011. She provided the Court with a cogent and logical explanation for her opinion.

Subsection 6(1)(e) of the Act

[116] In his oral submissions, Mr Khurana dealt with the six matters in respect of which the Crown had invited me to make findings under section 6(1)(e) of the Act.

[117] With regard to the first of these, which related to the protocol to be followed once it becomes apparent that the time frame within which an ambulance has been ordered cannot be met, Mr Khurana submitted that these events were now somewhat dated. The guidance in Crown production 11 had long since been replaced by that in production 12. He further submitted that it was clear that there was subsequent policy. It was his position that if the Crown were going to suggest that matters such as this should be the subject of findings under section 6(1)(e), this was quite proper, but what should be carried out was a legitimate examination (Sheriff Kearney in the *McAlpine* case). The Crown, he said, had to set before the Court the policy in force at the time, and what the policy is currently. The Court had to be clear, before considering suggestions under this subsection, as to the context of suggested recommendations. The purpose, he said, was to see, in the public interest, what could be done to prevent deaths in the future. Accordingly, he said, this matter was irrelevant under this subsection.

[118] He also submitted that the process is not about blame. The Crown had led evidence of failures to follow the relevant protocol, in the expectation that there would be a causal link with Andrew Logan's death. Mr Khurana submitted that this

subsection is not a dumping ground for facts where causation cannot be proved. He posed a question as to whether the Court could be satisfied that it had heard all of the relevant evidence on matters that had been raised under this subsection. He submitted that what the Crown had done by leading evidence regarding the majority of the matters in respect of which the Crown was seeking findings under this subsection, was to lead only one side of the story. No one but the Crown was able to know where the Crown was going in relation to these issues. As an example, Mr Khurana referred to the issue of cross-border ambulances. He maintained that if a Fatal Accident Inquiry is not an adversarial process, then one would expect firstly, enquiry into what "cross-border" means in Scotland, secondly evidence from somebody with authority in respect of that matter, and evidence of the pros and cons of using cross-border ambulances for urgent calls. Mr Khurana said that he rarely had to cross examine during such Inquiries, because normally the Crown does not have an agenda, and poses a series of open questions which bring out all of the pros and cons. However in this case he had had to ask questions in respect of the cons, for example with regard to emergency cover, or ambulances being caught up out of their own area dealing with emergency calls which arise whilst they are in another area. He maintained that it was inconceivable that all of these matters would not be raised, unless the Crown was treating the Inquiry as an adversarial process. On the evidence Andrew Logan must have known that he had an aneurysm. However, when he was asked by a nurse during one of the telephone calls on the evening in question whether he had any aneurysm, he had answered that he did not. Mr Khurana submitted that had Dr Marshall known about the aneurysm there would have been a

completely different set of circumstances, and it was highly unlikely that an Inquiry would have been necessary at all.

[119] With regard to the second matter, relating to the use by dispatchers in the Ambulance Call Centre of the RESG function, Mr Khurana submitted that this was all very speculative. It was clear on the evidence that dispatch decisions were not made in isolation. There were a large number of considerations. There was an absence of evidence of the “call stack” during the course of the evening/night in question. In any event, said Mr Khurana, it was being suggested that the RESG would have identified a particular ambulance at a particular point in time. He suggested that it was not clear how an ambulance would be identified at a particular time, unless the RESG were done at that time. At the site visit which had been made, the interaction between dispatchers, call takers and between teams of dispatchers was seen. It was obvious how quickly things changed. On the night in question Mr Hunter had come on duty having seen problems occurring the previous night. As a result he exercised his judgement and decided to achieve a skills mix, so as to ensure that two ambulances each had an ambulance technician and a paramedic on board. That decision was conveyed to the dispatchers. Mr Khurana submitted that the evidence demonstrated that dispatchers know where all their ambulances are and what they are doing at any particular time. Mr Hunter’s plan was distributed to the dispatchers. His plan had been to achieve the skills mix and then send ambulance number 5190 to collect Andrew Logan. The evidence did not reveal why Mr Hunter’s plan was not carried out. It was possible that the reason was connected with dispatchers being busy with emergency calls. It had, said Mr Khurana, to be borne in mind that this was only an urgent 4 hour call. The diagnosis also had to be borne in

mind – namely a possible obstructed hernia. It is only with hindsight that we know that Andrew Logan in fact had an aneurysm.

[120] With regard to the third matter raised by the Crown, in connection with achieving a skills mix, Mr Khurana submitted that the witness Mr Fell had no dispatch experience. Mr Khurana submitted that this was clearly a dispatch issue, and therefore Mr Fell's evidence should not be given any weight. In any event, given the number of variables, it would be difficult to frame guidance, and any guidance may therefore be counter-productive. This matter was analogous to the making of decisions according to clinical judgement. It should only be judged according to the evidence of an independent expert with relevant expertise, and no such evidence had been led. Mr Khurana said that Mr Fell had no understanding of the systems used by SAS. He said that they were different to the systems used by his own trust in the North East of England. He was not aware of the factual position. He did not know of staffing difficulties or what other calls were outstanding on the "stack" of calls, or of previous triage decisions. It was not valid to compare the circumstances of SAS with his own trust which was run on a different basis. In his trust the attitude to urgent calls was completely different. In his trust paramedics only were sent to category A calls. He gave evidence that only four vehicles in his trust were manned with two paramedics. He said that it was a wide area. Mr Khurana said that he could not understand (and if he was correct then Mr Fell's evidence was unreliable) Mr Fell's suggestion that his trust's guidance (which was not produced and which the Court did not see) contained a statement that a period of 30 minutes would be reasonable to achieve a skills mix. In cross-examination later he said that the time period was not specifically mentioned, but that there was reference to "a reasonable period". The

difficulty, said Mr Khurana, was that he understood that any time period referred to would be the time an ambulance was not attending to a call it could otherwise have been attending to. For example in Mr Logan's case the ambulance 5190 could have gone to Andrew Logan's call. Whilst he did not accept that that was the position, he understood the 30 minutes referred to by Mr Fell to be the time calls would be waiting for a skills mix to be achieved. Mr Fell's evidence was that in his trust, if there was an emergency or urgent call which either vehicle involved in a skills mix could go to, then the vehicle would be sent in preference to the skills mix being achieved. Accordingly, said Mr Khurana, the reference to a time of 30 minutes is wholly irrelevant and meaningless, if the ambulance is sent anyway. It was Mr Khurana's submission that Mr Fell's evidence must have related to the time when calls are not being attended to.

[121] Mr Khurana suggested also that Mr Fell was not fully informed as to the facts. Mr Hunter's evidence had not been led until late in the Inquiry, although Mr Khurana said that he had suggested that it be led early on, because Mr Hunter had been making a decision, and witnesses commenting on his decision would need to know what he was saying about it. When Mr Fairweather was given the facts of the matter he said that Mr Hunter's decision was entirely reasonable, that is to say his decision to achieve the skills mix and give his plan to the dispatchers. None of the other witnesses had been given that factual information. The basis of the Crown's submission under section 6(1)(e) in respect of the issue of skills mix and use of cross-border ambulances was the difference between Mr Hunter's and Mr Mortimer's evidence. However Mr Mortimer had not been given the factual situation.

[122] With regard to the fourth matter raised by the Crown under this subsection, namely the issue of use of cross-border ambulances, Mr Khurana suggested that I should be cautious in making any findings in respect of this matter. The matter had not been fully explored in a legitimate way. Again, the Crown had led its evidence on the basis of an expectation that a causal link would be established. No such link had been established. Again, Mr Khurana suggested that section 6(1)(e) should not be regarded as a “dumping ground”. The position of duty manager of the Ambulance Call Centre 2011 had changed. Now there is a national manager covering all centres. The manager has a strategic role. Mr Mortimer said that that role is involved in making decisions relating to the demands within the area, and the service to be provided. Accordingly, there is an additional role of a strategic nature in place now, looking at demands and how to resource those demands. That constitutes an additional layer and there had been no exploration of this at all, although it would be highly relevant to the matter raised by the Crown. He suggested therefore that I should be extremely cautious about making recommendations in respect of guidance being issued as to the use of cross-border ambulances.

Discussion

[123] The purpose of a Fatal Accident Inquiry is not to make any finding of fault, to apportion blame, or to establish any criminal or civil liability in respect of the death in question. Those are matters for a Court exercising its criminal or civil jurisdiction. The Act therefore provides that the determination of the Sheriff may not be admitted in evidence or be founded upon in any judicial proceedings of whatever nature

(including criminal proceedings or civil litigation in connection with the death in question).

[124] Rather it is the purpose of the Inquiry to carry out a fact-finding exercise, in public and strictly within the parameters of section 6(1) of the Act, so that those with a legitimate interest, in particular the relatives of the deceased, might be informed as to the cause of and circumstances of the death. An Inquiry will also try to ascertain, in the public interest, whether there were any reasonable precautions which might have been taken, which might have prevented the death, or whether there were any defects in any system of working which contributed to the death. The Sheriff may, in his determination, make comment, or indeed recommendations, in respect of such precautions or defects, or in respect of any other facts which are relevant to the circumstances of the death, with a view to deaths in similar circumstances being avoided in the future, provided that such comments or recommendations are supported by evidence in the Inquiry.

[125] Section 6(1) provides that the Sheriff is to set out in his determination, in so far as established in evidence to his satisfaction, the following circumstances of the death:

- (a) When and where the death and any accident resulting in the death took place;
- (b) The cause or causes of death and any accident resulting in the death;
- (c) The reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided;
- (d) The defect, if any, in any system of working which contributed to the death or any accident resulting in the death; and

(e) Any other facts which are relevant to the circumstances of the death.

[126] The place, time and immediate cause of death were not in issue. It was clear from the evidence, in particular the evidence of Dr Marjorie Turner, the pathologist who conducted the post-mortem examination, that Andrew Logan died as a result of rupture of an aneurysm of the right common iliac artery. Whilst the exact time and place of Andrew Logan's death were not clear from the evidence, it was clear that he had become unresponsive and lapsed into unconsciousness, at home, shortly before the ambulance crew arrived at around 02:02 hours on 18 September 2011. Thereafter paramedics performed CPR on Andrew Logan at his home, and in the ambulance on the way to hospital. Medical staff at the hospital also attempted to resuscitate him. Andrew Logan was pronounced dead at around 02.56 hours on 18 September 2011 at the Western Infirmary Hospital, Dumbarton Road, Glasgow. I have therefore determined, under sections 6(1)(a) and (b) that the cause of Andrew Logan's death was as found by Dr Marjorie Turner, and that he died either at home, or in the ambulance on the way to hospital, or at hospital, on 18 September 2011 between about 02.02 hours and about 02. 56 hours.

[127] I will turn now to the question of what, if anything, should be determined under sub-sections 6(1)(c), (d) and (e) of the Act.

[128] At the outset I want to say two things.

[129] Firstly, it seems to me that one of the main purposes of a Fatal Accident Inquiry is to identify steps which could be taken with a view to avoiding similar deaths in the future. If that is so, it cannot surely be right that it should take around two and a half years for the application for an Inquiry to be made by the Crown, and a further ten months or so for the Inquiry actually to start. I will return to this issue of delay

later, in connection with whether or not findings should be made under section 6(1)(e) of the Act.

[130] Secondly, in looking at what various people did or did not do on the night on which Andrew Logan died, particularly with regard to the dispatch of ambulances, the organisation of ambulance cover, and whether or not, had Andrew Logan arrived at hospital earlier than he did, he might have received emergency surgery to repair his aneurysm, it must be remembered that Andrew Logan had been diagnosed with a possible obstructed hernia (a condition requiring investigation by a surgical unit in a hospital, but not immediately life-threatening) and not a leaking or ruptured aneurysm of the right common iliac artery (which was the actual condition from which Mr Logan was suffering, and which was immediately life-threatening), and that the ambulance accordingly ordered by the out of hours general practitioner was by way of an urgent, rather than emergency, call, the ambulance to arrive within 4 hours – the lowest priority call apart from routine calls, such as transporting a patient from hospital to home. Everybody on the night in question was working on the basis of what turned out to be an incorrect diagnosis. And I should say that there was no criticism of Dr Marshall in respect of his not diagnosing Mr Logan's aneurysm – the evidence was that an aneurysm of the common iliac artery is very rare and difficult to diagnose.

[131] It was common ground among all those appearing at the Inquiry that no determination should be made under either section 6(1)(c) or 6(1)(d) of the Act.

[132] In considering what, if anything, should be determined under these subsections, the crux of the matter was whether the outcome could have been

different for Mr Logan, firstly if the diagnosis of his aneurysm had been followed up in 2008, and secondly, if he had arrived earlier at hospital on the evening in question.

[133] As far as events in June 2008 are concerned, Mr Logan was seen at Mr Rogers' clinic by Dr Nicol. It was Dr Nicol's intention that Mr Logan be seen again in around six months, after having a scan. That it did not happen, and the evidence did not reveal why.

[134] It was Mr Rogers evidence that had Mr Logan's case been reviewed, he would not have been considered a suitable candidate for elective repair of his aneurysm, due to his comorbidities, and in particular his severe respiratory disease. Mr Rogers was the only vascular surgeon to give evidence on this matter, and it would ultimately have been his decision whether or not elective repair would have been offered. He was supported in his evidence by Dr McLennan, the consultant anaesthetist/intensivist who gave evidence. She said that she almost certainly would not have been prepared to anaesthetise Mr Logan for elective repair. Her evidence was unchallenged.

[135] I have therefore concluded, on the balance of probabilities, that even had Mr Logan been followed up, he would not have been offered an elective repair of his aneurysm. Accordingly, neither follow-up nor elective repair was a precaution which might have avoided Andrew Logan's death. I have therefore made no determination in respect of this matter under section 6(1)(c) of the Act.

[136] Further, there was no evidence that the system in place for arranging follow-ups such as the one intended for Andrew Logan was defective. Whilst something clearly went wrong, and Mr Logan was not followed up, it remains unclear why that was. There was some evidence that he may have had some responsibility himself

under the system for making the follow-up appointment after seeing Dr Nicol. In the absence of clear evidence as to there being any actual defect in the system, it would, in my view, be wrong to make any determination suggesting or recommending change. In any event, given my conclusions as to whether or not he would have been offered elective surgery, the necessary causal link for any determination under section 6(1)(d) of the Act is not there, and accordingly I have made no determination under that subsection in respect of this matter.

[137] Accordingly, I do not need to consider the likelihood of Andrew Logan actually attending a follow-up appointment, or undergoing the necessary fitness testing, or, if he had been offered elective surgery, of his ultimately agreeing to undergo the procedure.

[138] Turning now to the events of the evening of 17 September 2011, into the early hours of 18 September, in order to make any determination under section 6(1)(c) or (d), I would have to be satisfied that, had Andrew Logan arrived at the hospital earlier than he did on 17 September 2011, he would have been offered emergency surgery to repair his aneurysm, and that there was a real and lively possibility of him surviving as a result.

[139] There was a degree of conflict between the evidence of Mr Rogers and Dr McLennan on the one hand, and that of Mr Chalmers on the other. Clearly, had Andrew Logan arrived at hospital earlier than he did, and before he became unconscious at around 02:00 hours on 18 September 2011, and a leaking or ruptured aneurysm had been diagnosed, there would have been a stark choice: either to operate, or not to operate, in which latter case the inevitable outcome would be death.

[140] Mr Chalmers, consultant vascular surgeon at the Royal Infirmary in Edinburgh, and lead clinician there between 2011 and 2014, was clearly a consultant of very considerable experience and expertise. His view was that had Andrew Logan arrived earlier at hospital, he may have been offered an emergency repair of his aneurysm, the certain alternative being death.

[141] Mr Rogers, a consultant for between 24 and 25 years, a General Surgeon with a speciality in vascular surgery at the Western Infirmary and Gartnavel Hospital in Glasgow, was also a consultant with a very extensive experience and expertise. Mr Rogers, the only witness who could have been the on-call vascular surgeon at the Western Infirmary on the night in question, gave evidence that he would not have operated on Mr Logan, had he arrived at hospital earlier, and that it was unlikely that he would have been operated on by anybody else. It was his evidence that in light of Mr Logan's comorbidities, in particular his severe COPD, emergency surgery to repair the aneurysm would not have been appropriate, and that the proper course would have been to offer palliative care only, with a view to ensuring that Mr Logan's death was as dignified and comfortable as it could be, and that there would be as little possible distress to his relatives.

[142] Dr McLennan, the consultant anaesthetist/intensivist who gave evidence, expressed the view that Mr Logan was a very poor candidate for general anaesthesia – he had previously been assessed as a high risk for general anaesthesia, and had been declined general anaesthesia for an earlier procedure carried out electively, for the removal of perianal warts. She too regarded Mr Logan's severe respiratory problems as a bar to surgery. It was her view, and that of Mr Rogers, that even if Mr Logan had survived the surgery itself, he would not have been able to be weaned off

the ventilator he would have been on in intensive care after surgery. Ultimately the ventilator would have to have been turned off, leading to Mr Logan's inevitable death.

[143] Mr Chalmers, interestingly, agreed that weaning Mr Logan off the ventilator would be a difficulty which could be expected. He also gave evidence that there were often differences of opinion among vascular surgeons, and he was clear that he was not critical of Mr Rogers' position that he would not have offered emergency surgery to Mr Logan.

[144] It seems to me that, had Andrew Logan arrived at Mr Chalmers' hospital earlier on the evening in question than he arrived at the Western Infirmary in Glasgow, it is possible that Mr Chalmers, if he had the necessary anaesthetic and intensive care support, would have decided to proceed with an emergency repair of the aneurysm. However, given that Mr Rogers worked at the Western Infirmary, a considerably smaller unit than that of Mr Chalmers, and that Dr McLennan worked at Hairmyres Hospital, which she said had a vascular unit similar in size to that at the Western Infirmary, and given that both Mr Rogers and Dr McLennan were of the opinion that Mr Logan would not have been offered emergency surgery, I have come to the conclusion that the position of Mr Rogers and Dr McLennan is to be preferred, particularly given the detailed, careful and logical evidence upon which their opinions were based, and particularly, as I have said, since Mr Chalmers was not critical of Mr Rogers position. In reaching that conclusion, I have also had regard to the fact that Mr Chalmers stated that earlier refusal of elective repair of an aneurysm would be a bar to emergency repair. It was clear that, as I have found above, if Mr

Logan had been followed up in 2008, he would not have been offered elective repair of his aneurysm.

[145] As to the likelihood of Mr Logan being able to be weaned off the ventilator, if he survived the actual surgery, Dr McLennan, the only consultant intensivist to give evidence on the matter, was in my view the witness most qualified to express an opinion on this matter.

[146] I have therefore concluded, on the balance of probabilities, that had Mr Logan arrived earlier at the Western Infirmary on the evening in question than he did, he would not have been offered an emergency repair of his aneurysm, and the certain outcome would have been his death. Accordingly, any measure which would have resulted in him arriving at hospital earlier cannot be viewed as a precaution whereby his death might have been avoided. Further, no defect in any system, for example for the dispatch of ambulances, could be regarded as a defect in a system of working which contributed to Andrew Logan's death – the causal link is not there. I have therefore decided that no determination should be made under section 6(1)(c) or (d).

[147] I think it is important to stress (particularly given Mr Chalmers' evidence that there is frequent disagreement among vascular surgeons, and the fact that he was positively not critical of Mr Rogers' position) that the question here is not whether Mr Logan, in the event of earlier arrival at hospital, should have been offered emergency repair of his aneurysm – it is whether he would have been.

[148] Having reached the conclusion that Mr Logan would not have been offered emergency repair of his aneurism, it is not strictly necessary to deal with the issue of whether there would have been time to get the surgery under way before Mr Logan succumbed at around 02:00 hours on 18 September 2011. However, it seems to me

that the “best case” scenarios spoken to by Mr Chalmers and Mr Rogers inevitably involved a considerable degree of assumption, and a degree of speculation (as Mr Chalmers accepted). The only hypothesis put to either was that Mr Logan might have arrived between 23:00 hours and 23:30 hours on 17 September 2011. Mr Chalmers gave evidence that an aortic clamp would have to have been applied by 01:45 hours on 18 September. Accordingly there would have been only 2 ¼ to 2 ¾ hours from the hypothetical time of Mr Logan’s arrival. And it must be remembered that he would have arrived with a diagnosis of a possible obstructed hernia. The best case scenario suggested by Mr Chalmers assumed that the diagnosis would be corrected and be confirmed by CT scan without delay. It therefore assumed the immediate availability of a CT scanner on a busy Saturday night. It also assumed that a junior surgical doctor would have realised that the earlier diagnosis was incorrect, and would have suspected a leaking/ruptured aneurysm. Mr Chalmers also assumed that the junior doctor who would have examined Mr Logan would have had some vascular surgery experience – however there was no evidence that such junior doctor would in fact have had that experience. It was also a matter of assumption that the on-call vascular surgeon would have been available, and not, for instance, operating on somebody else, and that there would have been immediate availability of an operating theatre. Further, there had to be factored into the timescale, time to discuss the options with Mr Logan, and possibly his family. Only after all that would Andrew Logan have been prepared for anaesthesia and surgery. It was also suggested by Dr Ray that on arrival Mr Logan would have been triaged by a nurse in Accident and Emergency, and would thereafter have been seen by a junior surgical doctor within an hour – that hour also would have to be taken account of in the

timescale. Her estimate of the time it would take to obtain the results of a CT scan in the Western Infirmary was greater than that of Mr Chalmers.

[149] Given the degree of assumption and speculation, I would not be prepared to hold, on the balance of probabilities, that had Andrew Logan arrived at the Western infirmary between 23:00 hours and 23:30 hours there would have been sufficient time to confirm a correct diagnosis, and do all that was necessary before he would have succumbed to the rupture of his aneurysm at around 02:00 hours.

[150] Mr Dawson suggested that, given Mr Logan's history of declining certain investigations, and not attending appointments, it was likely that he would in any event have declined emergency surgery (indeed he made this suggestion in respect of the possibility of elective repair in 2008 also). It seems to me that, notwithstanding the matters referred to by Mr Dawson, it would be very difficult to know how Mr Logan would have reacted to the very stark choice between certain death if no surgery were carried out, and the possibility, however slight, of survival if an emergency repair were attempted. I would not have been prepared to hold, on the balance of probabilities, that Mr Logan would have declined emergency surgery.

[151] Turning now to section 6(1)(e), as was said by Sheriff Kearney in his determination in the *Fatal Accident Inquiry in relation to the death of James McAlpine*, this subsection enables the Court to comment upon and, where appropriate, make recommendations in relation to, any matter which has been legitimately examined in the course of the Inquiry as to the circumstances surrounding the death, if it appears to be in the public interest to make such comment or recommendation. Accordingly, before making such comment or recommendation, there requires to be a legitimate examination in the course of the Inquiry as to the circumstances in question, and it

requires further to be in the public interest to make such comment or recommendation.

[152] I have already commented upon the delay in the application for this Inquiry being made. If one of the purposes of a Fatal Accident Inquiry is to identify steps which could be taken in the future, with a view to avoiding similar accidents or deaths, and, under this subsection, perhaps to comment on systems of working or practices, and perhaps make recommendations for change, it is important to know at the time of the Inquiry what the current position is in respect of those systems of working or practices. Otherwise there is a risk of, for example, recommendations being made which conflict with changes which have already been implemented, where, if the Court had been informed of those changes, it may not have made those recommendations at all. The making of comment or recommendations may therefore be counter-productive, particularly if steps already taken are equally or more effective than those which may be recommended by the Court. It is therefore questionable whether it could be in the public interest to make recommendations at all, where the Court does not have evidence of the up-to-date position.

[153] With regard to the six matters the Crown invited me to deal with under this subsection, number 5) was not insisted upon by the Crown, on the basis that the evidence was insufficient to support it. I agree that the Crown was right not to insist upon this.

[154] With regard to the second proposed finding, I do not think that the evidence before the Inquiry, which was to a degree conflicting, was such as to enable me to determine that it would have been best practice for a RESG to have been performed earlier in the evening in question, in order that a suitable resource could have been

identified as available to collect Andrew Logan. There was evidence, which I accepted, that RESG is only one of the tools available to dispatchers, and that dispatchers are continuously aware of where their ambulances are, and what they are doing. During the Inquiry's visit to the Ambulance Control Centre it was quickly apparent from observation of the dispatchers' computer screens that the situation changes frequently and quickly. Whilst use of the RESG function might have identified ambulance 5190 being, on the face of it, available at the Clydebank ambulance station at a particular time or particular times during the evening in question, the evidence was that Mr Hunter, the Duty Manager, had communicated to dispatchers his plan to achieve a skills mix involving ambulance number 5190 and Clydebank, and, at or after 22:30 hours, once the skills mix had been achieved, to use that ambulance to collect Andrew Logan. That ambulance was, however, sent on an emergency call at around 22:39 hours. It is not known why the ambulance was not sent before that to collect Andrew Logan. There was evidence that ambulances can be diverted from one call to a call with higher priority. There was, however, no evidence as to what calls, in particular emergency calls, were outstanding at any particular time during the evening in question – only that it was a busy Saturday evening and that there were a lot of emergency calls. There was some evidence that the system of dispatching ambulances had changed, and was now dealt with on a country-wide basis, and not by local area, as before. However, the current position was not, in my view, examined in sufficient detail at the Inquiry to enable me, in the public interest, to make any comment or recommendation in respect of the use of the RESG function.

[155] As far as the third matter raised by the Crown is concerned, the issue of skills mix, I was satisfied on the evidence that it was in September 2011, and is now, properly regarded as desirable to achieve, wherever possible, a skills mix, so that on each ambulance there is a paramedic and an ambulance technician. Clearly this can be sought to be achieved in the routine planning of the manning of vehicles, but that is of course subject to being affected by unplanned absences, for example due to illness. Given the differences between the Trust within which Mr Fell works, and SAS, and the fact that Mr Fell has not been involved in dispatch, I did not find his evidence of great assistance on this matter. Like Mr Khurana, I found his evidence as to what would be a reasonable time within which to achieve a skills mix confusing. It was Mr Fairweather's evidence that what Mr Hunter did on the night in question was entirely reasonable, and it has to be borne in mind that the call outstanding for Andrew Logan had the lowest priority of urgent calls, in circumstances where the diagnosis was of a possible obstructed hernia. It seems to me that it may well simply be a matter of judgement on the part of the person concerned with achieving a skills mix how that is done, taking account of all of the circumstances, including the demand for ambulances, the urgency of outstanding calls, and the time it would take to achieve the skills mix. I am of the view that this matter was not explored sufficiently in evidence to allow me to make comment, or indeed recommendations. Given all the variables, it seems to me that it would not even be appropriate to make any suggestion as to the issuing of formal guidance. That in itself simply may not be appropriate. No other expert gave evidence on this matter.

[156] As to the fourth matter raised by the Crown, namely the matter relating to cross-border ambulances, again I was not satisfied that the evidence was sufficient

for me to make comment, or recommendations, as sought by the Crown. The up-to-date position as to the use of cross-border ambulances for urgent calls (as opposed to emergency calls) was not explored properly in evidence. As Mr Khurana pointed out the structure of SAS has changed, and there is now a national manager with a strategic role. There was no proper exploration in evidence as to that role in relation to the current use of cross-border ambulances. I have therefore decided that no determination in respect of this matter should be made under 6(1)(e) of the Act.

[157] The fifth matter raised by the Crown has, as I have said, been dropped.

[158] As to the sixth matter raised by the Crown, namely the appropriate response time for an ambulance in cases of acute abdominal pain, this was, as I have said, amended by the Crown in the course of submissions, to take account of guidance already issued. In light of that guidance, and in the absence of any evidence as to any change since, I am of the view that it would not be appropriate, or in the public interest, to make any determination in respect of this matter under subsection (e). I accepted the evidence to the effect that this is a matter for the professional judgement of the doctor ordering the ambulance.

[159] That leaves the first matter raised by the Crown, namely the issue of the SAS call-taker supervisor not following the SAS protocol, when it became apparent that the 4 hour time frame ordered for Mr Logan could not be met. Whilst I do not wish to be overly critical of the call-taker supervisor on duty on the night in question, acknowledging that it was a busy Saturday night with many emergency calls to be attended to, that the call in respect of Andrew Logan was the lowest priority of urgent call, and that the diagnosis was of a possible obstructed hernia, there is no doubt that he did not follow what was required by the protocol at the time, when it

became clear that the call was not going to be met within the required time. It is to Mr Cree's credit that he accepted, during his evidence, that he had not followed the protocol to the letter. I have decided that this is a matter in respect of which I should make a determination under section 6(1)(e) of the Act, being a matter relevant to the circumstances of Andrew Logan's death.

[160] As I have said, I am satisfied on the evidence that the call-taker supervisor in question did not follow the protocol in force on the night in question. He did not make any attempt to contact the ordering GP. He did not reassess the patient's condition – instead he assumed (incorrectly), on the basis of being told that Andrew Logan had gone for a "lie down" about an hour earlier, that his condition was unchanged. He made an entry in the computer system to that effect, when in fact Andrew Logan's condition had worsened. The sharp pains in his abdomen were more frequent and more severe. I accepted evidence to the effect that the call-taker supervisor should have asked to speak to Andrew Logan, to make enquiry as to his condition, or if that was not possible, should have asked Andrew Logan's wife to check on him during the telephone call.

[161] I was satisfied on the evidence that had Mr Cree made proper enquiry as to Andrew Logan's condition during the telephone call he made at around 23:04 hours on 17 September 2011 to Andrew Logan's home, he would have learned about the deterioration in Andrew Logan's condition. I was also satisfied on the evidence of Dr Marshall, that had he been contacted he would not have agreed to an extension of time, and would not have upgraded the call to an emergency call – he would have said that he required the ambulance to attend within the 4 hours originally specified. I was further satisfied on the evidence (particularly the evidence of Mr Cree, Mr

Mortimer and Mr Hunter (although they were not wholly consistent with one another on the issue), on the balance of probabilities, that either in the event of the GP not agreeing to an extension, or in the event of the patient's condition having deteriorated, the call would have been updated to a category B, Yellow, emergency call, the ambulance being expected to attend within 19 minutes.

[162] Whilst I have concluded that this would have made no difference to the eventual outcome for Andrew Logan, for the reasons given above, I have decided that I should make a determination in respect of this matter under section 6(1)(e) of the Act, because in the case of a patient with a similar condition to Andrew Logan's condition, but who was a suitable candidate for emergency repair of the aneurysm, following the procedure in the protocol could have made a real difference – whilst there would be no guarantee of the ambulance arriving within 19 minutes after a call had been upgraded (it would depend on the number of other emergency calls outstanding), the likelihood is that the patient would arrive at hospital considerably earlier than if the call were left as a 4 hour urgent call. It would take precedence over everything except category A, Red, emergency calls. It seems to me that this is all relevant to the circumstances of Andrew Logan's death, although not causative. I am therefore of the view that the requirement to follow the protocol in relation to reviewing the patient's condition requires some reinforcement.

[163] I have therefore decided to make a determination under this subsection to the effect that there is a need to take steps to ensure that all staff are familiar with and understand the importance of complying with any protocol in force in respect of procedure when an urgent call will not be dealt with within the required timescale. It was clear that Mr Cree did not appreciate fully the importance of compliance in

respect of the call relating to Andrew Logan. Whilst at the time of the incident involving Andrew Logan, the protocol in force was that set out in Crown Production 11, Mr Cree, Mr Mortimer and Mr Hunter all appeared aware of the existence of an up-to-date protocol, which is reproduced in Crown production 68, and which was issued in November 2014 (although Mr Mortimer seemed to think it was issued in November 2013) and was to be reviewed in September 2015. This is not therefore a matter where there was a lack of evidence about the up-to-date position.

[164] The principal changes between the protocol in force in 2011, and the current protocol are as follows. The protocol in 2011, insofar as dealing with 2 hours and over categories of urgent calls which cannot be met, said that “the following protocol will be implemented” (my emphasis). The first requirement is that the ordering GP is to be contacted and an extension to the original time target negotiated. The second requirement is that the control centre will then contact the patient or the patient’s relative/carer and advise of the reasons for delay and of the revised timescale. At the same time the patient’s condition and welfare should be reassessed and where any clinical or welfare risk is identified, the call centre manager or supervisor should consider upgrading the call and/or re-contacting the patient’s GP. The third requirement is that C3 (the computer system) should be updated and relevant notes logged.

[165] On an unknown date in 2012, Gordon Mortimer, then acting head of service for West of Scotland EMDC (ambulance call centre) issued a bulletin (which is reproduced as Crown production 12), with number 01/12, in respect of dealing with urgent calls. It contained an extract from the procedures to be followed in respect of urgent calls going out of time. In the preamble it is suggested that at the

commencement of each shift a team member be nominated to complete the callback procedure for the duration of the shift, one supervisor from the team taking responsibility to ensure that the callbacks are completed appropriately and on time. The bulletin stated that the protocol to be implemented when the response time for 2 hours and over categories of urgent call could not be met was as follows. The first requirement, which is identical to that in the 2011 protocol, was that the ordering GP was to be contacted and an extension to the original time target negotiated. The second requirement was that if (my emphasis) the GP or ordering authority could not be contacted, the control centre was then to contact the patient or the patient's relative/carer and advise of the reasons for delay, and of the revised at scene time. At the same time the patient's condition and welfare should be reassessed using PROQA, and where any clinical or welfare risk is identified, the control centre manager or supervisor should consider upgrading the call and/or re-contacting the patient's GP. The third requirement was that the computer system should be updated and relevant notes logged (as was the case in 2011). The obvious difference between 2011 and 2012 is that whereas in 2011, where the time scale could not be met, both the ordering GP **and** the patient or the patient's relative/carer were to be contacted, in 2012 the requirement was for the patient or the patient's relative/carer to be contacted only if the GP or ordering authority could not be contacted. The other difference is that reassessment of the patient's condition and welfare should be by way of using the PROQA, a set of standard questions introduced after the 2011 protocol.

[166] In November 2014 a protocol was issued to deal with any urgent incident not dispatched within the predetermined timescale. It states that the dispatcher will

monitor all urgent incidents in the waiting stack, and that when the time remaining for a waiting incident is 30 minutes or less, the incident will be highlighted in yellow on the computer screen. At that point the national duty manager has responsibility for allocating a member of the team to make contact with the health care professional (HCP) to check how to best meet the patient's needs. If all staff are busy then a shift supervisor has responsibility for making contact with the HCP. The national duty manager has overall responsibility to ensure that out of time urgent calls have been contacted.

[167] The protocol goes on to set out the callback process, in considerably more detail than earlier protocols. In the first place the HCP who originally made the request is to be contacted and asked for an extension of the time originally given. The protocol goes on to say that if an extension is agreed then it is simply added to the incident, and an ambulance will be dispatched within the amended timescale. If the HCP feels that the condition of the patient has deteriorated since the booking was made, or does not feel it appropriate to extend the time, then an offer to upgrade the incident to a Category B emergency is to be made. The protocol then says "the incident will be (my emphasis) upgraded in CAD using the appropriate process". I observe here that this provision is less than clear: on one view the incident will be upgraded only if an offer to upgrade is accepted. On another view, because of the use of the words "will be" the call is to be upgraded to a Category B call whether or not any offer to upgrade is accepted. Any updated information is to be recorded in the notes section of the computer. The protocol further provides that in all cases the patient should be contacted to advise him or her that the HCP responsible for his or her care has been contacted and that a new timescale has been agreed. Where the patient or patient's

representative feels that there has been a deterioration in the patient's condition the call should be escalated to the Clinical Adviser for further assessment and advice on how to manage onward care. The protocol provides that if there is no evident deterioration, then the person spoken to during the call should be told that if the patient's condition changes in any way before the ambulance arrives he or she should call back immediately on 999 for further assistance. The 2014 protocol therefore clearly requires that both the HCP **and** the patient be contacted (as was the case in 2011), unlike the 2012 protocol which required a call to the patient only if the GP or ordering authority could not be contacted.

[168] Mr Cree, although saying during his evidence that he was familiar with the 2014 protocol, clearly was not. He frequently had to consult the production when being asked questions about the procedure in force. Notwithstanding the requirement in the 2014 protocol (and indeed in the protocol in force in 2011) that, on a call going out of time, both the ordering GP and the patient require to be contacted, there appeared to be a lack of awareness as to that.

[169] With regard to the night in question, Mr Cree gave evidence that, when it was clear that the call was going out of time, he should have telephoned the ordering authority or the patient or the patient's relatives, whereas the protocol required both. When he was referred specifically to Crown Production 11, he had to accept that he had not followed the protocol, in particular in respect that he had made no attempt to contact the ordering GP. He gave somewhat confusing evidence, firstly to the effect that his general practice would be to try to telephone the GP, and, if he did not get the GP, to try to telephone the family. However, when asked why he did not do that in this case, he said that the chances of getting the same GP in a shift would be

slim. He then changed his evidence to say that in respect of 4 hour calls, if it was at night and out of hours, his general practice was not to try to telephone the GP, but to go straight to the family. His use of the present tense suggested that, notwithstanding the 2014 protocol, it remains his practice in respect of out of hours calls not to telephone the GP.

[170] Mr Hunter gave evidence to the effect that if it is not possible to contact the ordering doctor, the rules are that the patient or patient's relative is to be telephoned, to assess if the patient's condition has changed. Accordingly, (by his use of the present tense) he appeared to be unclear as to what was required by the 2014 protocol (which came into force before his retirement), namely that both the ordering authority and the patient are to be telephoned. He later gave evidence, when asked when, ideally, the patient should be contacted, that the patient would be contacted only "if we can't contact the ordering authority". He also gave evidence, similar to that given by Mr Cree, that on the night in question in 2011 there would have been no point in telephoning the Out of Hours Service after 23:00 hours. He then said that he had subsequently learned that his understanding as to the time out of hours GPs went off shift was incorrect.

[171] Mr Mortimer gave evidence that as the call approaches expiry of its stipulated time, the GP or ordering authority should be contacted. He said that the call to the GP should be made between 30 and 15 minutes prior to the call going out of time, but stated that if demand in the service is heavy, it could be at the end of the stipulated period, or even after, when the call is made. He went on to say, using the present tense, that it is unusual for a GP, on being telephoned, not to decide either to extend the time, or to upgrade to emergency. He said that if the doctor does not

extend, and does not upgrade, the most likely outcome is to contact the patient or the patient's family. Accordingly, he appeared not to be aware of the requirement in the 2014 protocol to telephone both the ordering GP and the patient or the patient's family. He said that he was aware that in January 2012 there was a change, so that only if the GP could not be contacted when a call is going out of time would the service then contact the patient or the patient's carer. He expressed the view that there should still be contact with the patient or his family, although not required in the 2012 protocol. He went on to say that he did not believe that the procedure in the 2012 protocol was current, and thought that there was a new procedure introduced in November 2013. He appeared not to be familiar with the 2014 protocol.

[172] Further, Mr Cree and Mr Hunter, at the time of giving evidence in Court were clearly still of the view that an out of hours GP would be off shift at 23:00 hours. They both gave this as a reason for the GP not being contacted in Andrew Logan's case, but both appeared, by the use of the present tense, to believe that at the date of the Inquiry out of hours GPs would not be working beyond 23:00 hours. Factually, that was not the case. Dr Marshall is clear that he did not go off shift until midnight. He also gave evidence that even if he had gone off shift, the out of hours service was able to contact him. Accordingly, even if a GP had gone off duty at 23:00 hours, that would not be a good reason for not attempting to contact him through the out of hours service thereafter. I formed the impression, on the basis of the evidence set out above, and despite the requirement in the protocol, that Mr Cree and Mr Hunter (if not retired) would still not attempt to contact an out of hours GP, if it was after 23:00 hours.

[173] It seems to me, therefore, that steps should be taken to ensure that staff are fully aware that, irrespective of the time which has passed since the call was initiated, and irrespective of shift patterns of out of hours GPs, if an urgent call is not going to be attended to within the stipulated timescale, the procedure set out in any protocol in force at the time must be followed, and in particular the ordering GP or ordering authority must be contacted.

[174] I have also decided, under section 6(1)(e), to determine that there is a lack of clarity among SAS personnel as to the circumstances in which an urgent call should be upgraded to an emergency one, and as to who has authority to order such an upgrade. This too, whilst upgrading the call in respect of Andrew Logan at an earlier time would not have affected the outcome for him, is, in my view, relevant to the circumstances of his death.

[175] Again, this is a matter where there was evidence as to the up-to-date position, both by way of the 2014 protocol, and by way of evidence being given by witnesses as to what they understood the current position to be. It is therefore a matter, in my view, in respect of which a determination may legitimately be made.

[176] Both the 2011 and the 2012 protocols required, when a 2, 3 or 4 hour urgent call went out of time, that the patient be contacted, and that the patient's condition and welfare be reassessed, and where any clinical or welfare risk was identified, the EM DC Manager or Supervisor should consider upgrading the call and/or re-contacting the patient's GP. Accordingly, prior to the introduction of the 2014 protocol, upgrading a call where, for example, on telephoning a patient it became clear that the patient's condition had deteriorated, was a matter for the discretion of the Manager of the call centre, or a Supervisor.

[177] The 2014 protocol did not repeat this requirement. Instead it contains what I have already said is a statement, which is less than clear, that when the HCP who is contacted on an urgent call going out of time feels that the patient has deteriorated, or does not feel it appropriate to extend the time, then an offer to upgrade the incident to a Category B emergency will be made, and the incident will be upgraded in CAD. The protocol goes on to require that in all cases the patient should be contacted and be advised that the HCP has been contacted, and that a new timescale has been agreed for the patient's transfer to hospital. It also provides that where the patient or patient's representative feels that there has been a deterioration in the patient's condition the call should be escalated to the Clinical Adviser for further assessment and advice on how to manage the onward care of the patient. The 2011 and 2012 protocols clearly indicate that either the call centre Manager or Supervisor had authority to upgrade an urgent call to an emergency call. The 2014 protocol, as I have said, indicates that where the GP (or other ordering authority) feels that the patient has deteriorated, or does not feel it is appropriate to extend the time, then an offer to upgrade will be made and the incident will be upgraded. On one view, as I have also said, that means that whether or not the offer to upgrade is accepted by the GP, the call will be upgraded. On another view, it could be interpreted as meaning that the call will be upgraded if the offer to upgrade is accepted by the GP. I feel that that is less than clear. Unlike the 2011 and 2012 protocols, the 2014 protocol does not indicate who has authority to upgrade – it merely requires that where the patient or patient's representative feels that there has been a deterioration in the patient's condition the call should be escalated to the Clinical Adviser for advice.

[178] Mr Cree, in his evidence, was not entirely clear on the matter of authority to upgrade. He was asked what would have happened if he had obtained from Andrew Logan or his wife information to the effect that his condition had deteriorated, when he telephoned shortly after 23:00 hours on the evening question. His answer was that he would have re-triaged the call. He said the call could possibly have become an emergency call. He said he might have spoken with a Clinical Adviser or the duty manager. Later he said that if the GP was not demanding an upgrade, and was not agreeing to an extension, he would go to the Clinical Adviser or duty manager to see what to do next, and to see if either of them would upgrade the call to an emergency call. He said that where the doctor had not given extra time he would not take a decision himself. Peculiarly, he then said that if the call was already half an hour past its time he could have upgraded the call, but would prefer to do so through the duty manager or Clinical Adviser. He later said that he did not have authority to upgrade without the authority of the duty manager or the Clinical Adviser.

[179] Mr Mortimer's evidence was that in 2011 if there was uncertainty on the supervisor's or call taker's part, as to whether or not to upgrade, the Clinical Adviser could be asked for advice. He suggested that in 2011 the advice would be to upgrade. As to the present position, his evidence was that the Clinical Adviser would telephone the patient for a more in-depth triage. It was his evidence that in Mr Logan's case he did not think there was any option to do anything other than upgrade, even if the information from Mr Logan's family had been that everything was fine. Where the call had gone out of time, and no extension had been obtained from the GP, it was his position that the responsibility for any deterioration was now that of the ambulance service, and therefore there was no option than to upgrade to

emergency. He later said, using the present tense, that if the ordering GP does not allow an extension, and does not upgrade to an emergency it is then left to the ambulance service. It was his position that in those circumstances, if time ran out, there would be an upgrade. He said that is what he would do. He went on to say that some others would also decide to upgrade, but some may not. This seemed to me to indicate an absence of clear practice.

[180] Mr Hunter gave evidence that, in Mr Logan's case, if the GP had been contacted and had not agreed to an extension, and had not decided to upgrade, the ambulance service would automatically have upgraded the call to a Category B emergency call. He appeared to indicate that the up-to-date position is that whoever telephones to speak to the patient, where a call is going out of time, would take the patient (or patient's relative) through their standard questions. This would give an outcome at the end of the questioning, and the call would be treated like a 999 call, and no longer as an urgent call. He said that this is what would happen where it is impossible to contact the ordering GP.

[181] With regard to Andrew Logan's case, Mr Hunter said that if a call had been made at 22:39 hours to the ordering GP, and the GP had refused an extension of time and had said that he wanted the ambulance to arrive within the originally stipulated time, he would immediately have upgraded the call to an emergency, Category B call. He said that the minute the doctor said there was to be no extension, the automatic response would have been to upgrade the call to an emergency call. The call taker supervisor, Mr Cree, had and has authority to upgrade a call. He was clear that if Mr Cree had phoned Andrew Logan's home at the end of the four hour period ordered, and if he had ascertained that Andrew Logan's condition had deteriorated

since the GP saw him, Mr Cree should immediately have upgraded the call to a Category B emergency call.

[182] This is in my view a matter of importance. As I have said, a decision to upgrade an urgent call to an emergency call could have a significant effect on the time a patient will arrive at hospital. Accordingly, it seems to me that steps ought to be taken to ensure that all staff are clearly aware of circumstances in which a call should be upgraded, or in which an upgrade should be considered, and by whom any such upgrade should be effected or considered.

[183] I would like to conclude by thanking those who appeared at the Inquiry for the very helpful way in which they presented the evidence, and made submissions, and to express the Court's condolences to the family and friends of Andrew Logan.