INQUIRY UNDER THE FATAL ACCIDENTS AND INQUIRIES (SCOTLAND) ACT 1975 INTO THE SUDDEN DEATH OF GARRY JOHN SHAW

Sheriffdom of South Strathclyde, Dumfries and Galloway at Hamilton

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

(Hereinafter referred to as "The Act")

Determination

by

David Bicket Esq

Sheriff of South Strathclyde,

Dumfries and Galloway at Hamilton

in the

Fatal Accident Inquiry

regarding the death of

Garry John Shaw

Hamilton:

The Sheriff determines

(1) In terms of Section 6(1)(a) of the Act that Garry John Shaw residing at 180 Watson Street, Motherwell died at Wishaw General Hospital, Wishaw on 19th November 2005 at 13:31 hours.

(2) In terms of Section 6(1)(b) of the Act that the cause of death was (a) pulmonary thromboembolism due to (b) thrombosis of deep veins of left calf due to (c) fracture of left leg due to (d) accident at work.

(3)(a) In terms of Section 6(1)(c) of the Act that a reasonable precaution whereby the death might have been avoided would have been for the said Garry John Shaw to seek medical assistance when he started to experience pain and swelling of his left thigh, approximately one week after he was given a below knee cast on 2nd November 2005.

(3)(b) Reasonable precautions whereby the accident which ultimately led to the death might have been avoided were, when transporting cladding panels using a mobile elevated work platform (MEWP) to either secure them or lay them flat during the course of transportation, and for the said Garry John Shaw to have taken reasonable care for his own safety and avoided driving the mobile elevated work platform over a pile of pea gravel, which caused the cladding panels carried within the said mobile elevated work platform to fall thereby breaking his leg.

(4) In terms of Section 6(1)(d) of the Act the defects in the system of working which contributed to the accident resulting in the death was a failure by A J Cladding Limited to identify the risks involved in moving cladding panels from the point of delivery to the place where they were to be fixed, and a failure to use a safe method for transporting these panels.

(5) The facts relevant to the circumstances of death in terms of Section 6(1)(e) are set out fully in the note appended to this Determination.

NOTE

Inquiry into the circumstances of the death of Garry John Shaw was commenced on 15th January 2007 and continued on 16th and 17th January. Evidence came from some fifteen witnesses and there were some twenty three documentary productions lodged by the Procurator Fiscal. Ms Carnan, Procurator Fiscal Depute presented the evidence and Ms Sargent appeared for the National Health Service Central Legal Office. No other party was separately represented.

The duties and powers of the Sheriff in respect of his Determination are contained in Section 6 of the Act. This Section provides as follows:-

(1) At the conclusion of the evidence and any submissions thereon, or as soon as possible thereafter, the Sheriff shall make a Determination setting out the following circumstances of the death so far as they have been established to his satisfaction -

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

(b) the cause or causes of such 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 defects, 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.

I will deal with each of these issues in turn. It is clear from the evidence however that some can be dealt with much more briefly than others. There are two preliminary matters worth mentioning and these are that firstly, an inquiry of this nature is not

determining any question of civil fault or liability (Black v Scott Lithgow Limited 1990 SLT 612), and of course the Determination cannot be founded upon in any subsequent proceedings (Section 6(3)). Despite the wording of Section 6(1)(c) therefore, the Sheriff does not have power to make findings of fault or to apportion blame.

Secondly, in terms of Section 4(7) the rules of evidence shall be as nearly as possible those applicable in an ordinary civil cause brought before the Sheriff. The standard of proof is the balance of probabilities and facts and circumstances can be established without the necessity of corroboration.

SUMMARY OF EVENTS

On 19th September 2005 the deceased was transferring Trespa Cladding Panels on the building site of John Paul Primary School, Viewpark, Uddingston. The deceased was self employed and working with A J Cladding Limited. A Director of A J Cladding's, one John Easton was working with the deceased. The main contractors for the building site were Messrs Balfour Beatty Limited. They had sub-contracted certain works to Messrs Nortek Aluminium Systems Ltd who had in turn sub-contracted the installation of Trespa Meteon Cladding to Messrs A J Cladding Limited. Assisted by Mr John Easton the deceased loaded around twelve cladding panels onto the work platform of the mobile elevated work platform they were using (hereinafter MEWP). He was directed to drive the MEWP round the site from position A which is shown on Production Number 2 being a sketch plan of the construction site, to position B in an anti clockwise direction. He was so directed by Mr Easton who told him to do so and then to take a tea break while he went to collect another worker. The path over which he required to drive the MEWP was relatively level. When he reached approximately point B however in the course of reversing the MEWP to a position whereby work could commence to install the cladding platforms he failed to realise that he had reversed the MEWP over a pile of pea gravel which caused the machine to tilt and the panels which were leaning against the handrail to become dislodged. They fell breaking his ankle. This took place around 9.45 am. Thereafter Mr Shaw was conveyed by ambulance to Monklands Hospital where he remained for approximately three days having a manipulation of the fracture on 20th September 2005 with the fracture set in a full leg plaster cast. After discharge he re-attended at the fracture clinic on 5th October 2005 when his plaster was adjusted. He was seen again on 12th October and on 2nd November 2005, and on the latter date his plaster was changed to a light below knee cast. He was due to further attend on 23rd November 2005.

On 19th November 2005 he was in a public house in Motherwell when he became ill and an ambulance was summoned. He was taken to Wishaw General Hospital where he subsequently died. A post mortem examination was subsequently carried out by Doctor Marjorie Black, Forensic Pathologist of the University of Glasgow on 23rd November 2005.

SECTION 6(1)(a) - WHERE AND WHEN THE DEATH TOOK PLACE

Garry John Shaw died at 13:31 hours at Wishaw General Hospital, Wishaw on 19th November 2005.

SECTION 6(1)(b)

A - THE CAUSE OR CAUSES OF DEATH

There was no dispute that the primary cause of death was a pulmonary thromboembolism. Crown Production 13 was the Post Mortem Report of Doctor Marjorie Black, a Forensic Pathologist of the Department of Forensic Medicine and Science at the University of Glasgow, following upon a Post Mortem Examination carried out on 23rd November 2005. Doctor Black said in evidence that both the deceased's lungs were solid and both major pulmonary arteries were completely occluded by coiled recent thrombus which extended down into the medium and small sized arteries. She was of the clear view that the deceased died of a pulmonary thromboembolism and that view was accepted by the two doctors who had treated the deceased for his broken leg, Mr A C Campbell and Mr S Sinha, respectively the Consultant and Staff Grade Orthopaedic Surgeon at Monklands Hospital. Where there was more dispute however was what had caused the pulmonary thromboembolism itself. It was accepted by Doctor Black that there was a long time interval between the date of the accident and the deceased's death and she agreed with the Orthopaedic Surgeons' views that it was extremely unusual for a thrombosis to develop after such a lengthy period of time at the site of a fracture. It was suggested by both Mr Campbell and Mr Sinha, it having been discovered that the deceased had taken a line of cocaine at approximately mid-day on the date of his death, that such drug abuse would make the deceased prone to thrombus and they both referred to a 1993 paper by an American Expert in this regard. They both felt that cocaine abuse rather than the leg break, was a more probable explanation for the thrombosis. They pointed out that in general terms Mr Shaw was a low risk patient for deep vein thrombosis. They thought it unlikely that such a thrombosis could have originated in his left calf as such a massive thrombosis would, they thought, have to have originated in larger veins.

In relation to the cause of death however I preferred the evidence of Doctor Black. She confirmed that she did four to six hundred post mortems per annum and had done so over a thirteen year period. Several hundred of these had featured pulmonary thromboembolism and several hundred drug abuse deaths. Because she was aware that the question of the deceased having taken cocaine was likely to come up she had considered that in the context of her post mortem. Her examination of his heart showed that the deceased had a healthy heart which was important because cocaine could be associated with heart problems. The fact that the thrombus in this particular case was a coiled recent thrombus was significant in that she stated that typically this was caused by clots from the small veins passing through various arteries and when these clots reached the pulmonary arteries they formed coils which then blocked the lungs. This ailment was not survivable.

On examination of the deceased's left leg, she stated the most frequent site of a clot found in post mortem were the deep veins of the legs which lay behind the calf muscles and between that and the bone. Because of the history of trauma and the fracture she had examined that first, and found a remaining thrombus in the deep veins of the left calf. That, she said, was extremely likely to be the source of the pulmonary thromboembolism. She also considered the other factors such as the swelling in the left thigh and the fact that the deceased's leg had been immobile and

in plaster for a fairly lengthy period of time. A microscopic examination had also been done and she had found what very well might have been evidence of an earlier thromboembolism in the deceased's lungs.

Considering the deceased's blood sample, the presence of cocaine and the constituency of it was consistent with having been taken at around mid-day on the date of his death. Having considered that however, and all other factors, including the deceased complaining of swelling and pain in his left leg, she was satisfied that the thrombosis resulting in the pulmonary thromboembolism had originated in the deep veins of the deceased's left calf and that that was due to the fracture of his left leg and the consequent lack of mobility of that limb. Immobility, she stated, was recognised as a factor in the formation of deep vein thrombosis and the deceased had been immobile to a varying extent from 19th September until the date of his death. After he became more mobile when the short plaster cast was put on he had complained of pain and swelling in his leg. Doctor Black pointed out that even relative immobility could result in the formation of deep vein thrombosis, as occasionally occurred in airline flights as short as four, five or six hours.

So far as the question of cocaine influencing the formation of a thrombus was concerned she had spoken to her colleagues including those with excess of twenty five years experience, she had consulted the text books and she had searched on the internet and various medical publications. Nowhere had she found any evidence that cocaine could cause deep vein thrombosis except when injecting had taken place. She had consulted what she regarded as the main book on this which was Karch's Pathology of Drug Abuse. Doctor Karch was a medical examiner who had submitted over one hundred papers in the USA. In over one thousand references to cocaine in that book nowhere was deep vein thrombosis or pulmonary thromboembolism mentioned as a significant risk factor in cocaine use. Doctor Black was aware of the 1990s papers suggesting that cocaine caused increased stickiness of the blood but that had not been confirmed by studies, some studies finding the opposite of that. She was also a member of a group reviewing all drug deaths in Scotland and had never seen such an association.

For all of these reasons on the balance of probabilities therefore I am satisfied that cocaine made no contribution to the death of the deceased. I am satisfied therefore that the cause of his death was pulmonary thromboembolism due to thrombosis of the deep veins of the left calf which was due to the fracture of the left leg and the immobility resulting therefrom. There was no doubt that the fracture had been caused by an accident at work.

B - THE CAUSE OR CAUSES OF THE ACCIDENT RESULTING IN THE DEATH

There is little dispute that there were really only two contributing factors to the cause of the accident. The first of these was that the cladding panels which were being transported by the deceased were not laid flat or alternatively secured to prevent them becoming dislodged and falling against him fracturing his leg. There was various evidence given about whether or not the MEWP was a suitable means of transporting building materials around the building site. Those experts who gave evidence on it namely Mr Keith Valentine of Murval Management Safety and Training Services, Mr Simon Hunter of the Balfour Beatty Group Limited and Mr Adrian Tinsin

and Mr Graham McMinn both of the Health and Safety Executive all seemed somewhat uneasy about the use of the MEWP for transporting building materials from one side of the site to another but I was satisfied, having heard Mr Tinsin state that had he seen this going on he would probably not have stopped it, that the actual transportation of the materials was not the problem, rather the problem was the fact that the materials were not either strapped in or preferably transported lying flat. Had they been so the accident would not have happened.

It was also perfectly clear that the principal cause of the accident was the deceased's own fault in reversing the MEWP over a pile of pea gravel which he had not seen, when manoeuvring the MEWP to the area where the panels were to be fitted. The deceased ought to have checked and ought to have noticed that pile of gravel before he reversed the machine. Had he done so the accident would not have occurred. There was evidence that the deceased's IPAF certification had expired - I am satisfied that that had no bearing on this accident.

There were various other issues raised by the Health and Safety Executive and by the safety experts but in my view although certain deficiencies were identified none of these were responsible for the accident either.

Section 6(1)(e) - FACTS WHICH ARE RELEVANT TO THE CIRCUMSTANCES OF DEATH

I consider it would be more appropriate now to move to Section 6(1)(e) and to explore the relevant circumstances as a means of determining whether there were any reasonable precautions whereby the death and the accident resulting in the death might have been avoided, in terms of Section 6(1)(c) of the Act, or whether or not there were defects in the system of working which contributed to the death in terms of Section 6(1)(d). There is inevitably a degree of overlap between the reasonable precautions whereby the accident resulting in death might have been avoided, and the defects, if any, in the system of working which contributed to the death or any such accident.

There are two areas in this particular Fatal Accident Inquiry which require to be explored in respect of each of sub-sections 6(1)(c) and (d) namely the circumstances surrounding the accident itself and the circumstances surrounding the medical treatment which the deceased received. Looking firstly at the accident there were a number of factors under the heading of reasonable precautions whereby the accident might have been avoided. In my view only two of these were relevant and they are reflected in the findings that I have made. In relation to the defects in the system of working it is clear from the reports prepared by Mr Valentine, and the evidence given by Mr Hunter, together with the evidence of the two officials from the Health and Safety Executive that there were a number of defects in the system of working, but it is another matter entirely to say that these contributed to the accident. In my view the only ones that contributed to the accident were those that I have specified and there is little point in investigating further in this Determination defects which did not do so. The various defects that were drawn to the attention of the Directors of Messrs A J Cladding Limited by the Health and Safety Executive appear to have been appropriately acted upon and I refer to Production 7 and Production 8 in this regard. For the avoidance of doubt although there may have been some

defects in their system of working it did not seem to me from the evidence that I heard that either Nortek Aluminium Systems Limited the sub-contractors, or Balfour Beatty the principal contractors were responsible for any defects which contributed to the accident.

The position is not so straight forward when one comes to consider the medical treatment that the deceased received after his accident. In this regard there was somewhat conflicting evidence. That came from the deceased's sister Eileen Shaw (who I regarded as a truthful witness doing her best to accurately and truthfully answer the questions she was given) and from Mr Campbell and Mr Sinha the Surgeons who treated the deceased at Monklands District General Hospital of whom the same could be said subject to certain reservations about their evidence which I will mention.

In this area I have already dealt with what the cause of death was and found it to be pulmonary thromboembolism due to thrombosis of deep veins of the left calf due to the fracture of left leg which was caused by an accident at work. That being the case much of this Inquiry related to whether or not the deceased had been given proper advice as to how to minimise the risk of developing deep vein thrombosis, and what other treatment was given to him in that regard.

The two doctors who treated the deceased at the Orthopaedic Department, Mr Campbell and Mr Sinha, both gave evidence about the treatment that he received. There was no evidence to suggest that anything that was done was other than entirely appropriate for the injury that the deceased had suffered. Both stated that the deceased was in the low risk group for developing deep vein thrombosis because of his age, because the surgical procedure was less than thirty minutes and did not involve open surgery. There were no other contra indicating factors to suggest that he was at risk of deep vein thrombosis. The deceased was not clinically obese and was a non-smoker. He was given clexane, a blood thinning drug after surgical procedure with a view to minimising any risk of developing DVT.

The area of concern for the deceased's family appeared to be whether or not he was given appropriate advice after his surgery in relation to what steps he should take to minimise the risk of developing DVT. I am satisfied that whilst in hospital his bed end was elevated. That was one such appropriate step to minimise such a risk.

Both doctors indicated that discussion of risks like DVT are not documented in the medical notes but that as a matter of routine they would advise patients of the risks of DVT and the precautions to be taken. Both stated that the patients would be told to keep their leg elevated and move those parts of the legs outwith the plaster, for example by wriggling toes, and making the calf muscles contract and expand to act like a pump.

In this particular case the deceased initially was fitted with a whole leg plaster, which was dealt with by a plaster technician. On the first occasion on 5th October when he returned after surgery, the x-rays shows that the fracture was slightly out of alignment and a procedure involving taking a wedge out of the plaster correcting the alignment was carried out. Mr Sinha advised that the deceased would be advised to be non-weight bearing and to keep his leg elevated. The deceased was clearly

instructed in the use of crutches. When he returned on 12th October x-rays were taken which showed that the alignment was satisfactory. However the necessity to re-align the injury meant that the healing process would lengthen. Mr Sinha again advised that elevation and toe exercises would be recommended to the deceased and that as a matter of course he explained reasons to patients for having to have their legs elevated and for the toe exercises. Without doing so, he said, and advising of the risk of clots in the legs, no sense would be made of the requirements. The deceased would be told to keep mobile but when sitting to keep his leg up. Although the medical notes did not reflect that advice the notes he stated were only a summary of what was told. If the deceased was not to be mobile he would have been kept in hospital.

On 2nd November Mr Campbell saw the deceased and changed his plaster to a below knee plaster. Mr Campbell was adamant that he always gave patients advice about wriggling their toes and about the risks of developing DVT, and in this case he did so as well.

The deceased's sister Eileen Shaw, whose evidence I accepted as truthful, stated she had visited him three times in hospital, picked him up from hospital and took him to his appointments at out-patients including being in with him on two occasions when he was dealt with. She did not hear this advice being given. Crown Production 22 was a leaflet headed Plaster Instructions which should have been given to the deceased. I am satisfied from the evidence of Eileen Shaw that he did not get this leaflet. She never saw the leaflet and it was not amongst his clothes which were washed on his return home nor amongst his belongings in his bag which was unpacked. The deceased did get an appointment card Number 23 of Process which does state on it "other patients will offer advice but if you are unclear about any aspect of your treatment or injury, please ask for advice from the staff directly involved in your care within the department/clinic".

Mr Campbell in evidence pointed out that he would routinely give advice similar to Mr Sinha said he gave, to his patients. This would be done routinely on each visit. In relation to advice about DVT, that was given routinely not only by the treating doctors but also by the nurses who for example gave injections. The deceased had been given an injection of heparin or clexane and to injection someone without telling them why, amounted to an assault. The advice about avoiding DVT would also be reiterated in the clinics. Mr Campbell also indicated that he would have expected the physiotherapist to give such advice and also the plaster technician when putting on the plaster. Production 22 had indeed been framed by the plaster technician. He confirmed that had there been any sign of deep vein thrombosis when the lower leg plaster was put on on the 2nd November he would have noticed it. The deceased had not complained to him at that stage. I am prepared to accept that that is the case. Mr Campbell pointed out that on 2nd November when changing the plaster it would take around ten or fifteen minutes and that was ample time to talk. He would have to give advice about walking around, the use of crutches, the increasing bearing of weight. Despite the fact that he could not say for certain that Production 22 had been handed to the deceased he was satisfied that the advice in that Production had been given to the deceased verbally by various people on various occasions.

As stated I am satisfied that the deceased did not receive Production 22 relying on his sister's evidence in this regard. Having considered the evidence of the two doctors however I am satisfied that he was given the advice that is contained within it. The reservations that I have arise out of the fact that advice that is given routinely, can sometimes be omitted, with someone thinking they had given it when they have not. However in this particular case that would involve two doctors, a physiotherapist, the plaster technician and nurse all failing to give such advice and I am satisfied that on the balance of probabilities the appropriate advice would be given to the deceased in relation to the avoidance of DVT.

I am prepared to accept that at the time Mr Campbell changed the deceased's plaster on 2nd November he was not showing any signs of developing DVT. It is perfectly clear from his sister's evidence that it took around a week or so after that for the pain and swelling to develop. What the deceased should have done at that stage is seek medical advice. His appointment card suggested that he should do so but more importantly commonsense suggested that he should do so. On the day of his death or shortly before it he was given such advice not only by his friends but also by his family. He did not follow it up because he had an appointment in the relatively close future. Clearly and tragically he did not appreciate the potential dangers of his medical condition. The failure to take medical advice however was ultimately his own failure.

To avoid any dispute arising in the future however, as to whether or not the appropriate advice as regards the avoidance of DVT has been given to someone whose limb has been placed in plaster, a system should be brought into place so that each patient attending should be given a copy of the plaster instructions and a record of that should be kept. The easiest way seems to me to be by the patient signing acknowledging receipt that these instructions have been given. Some steps have already been taken in this regard but they should be fully implemented and a system brought into place to ensure that this happens on each occasion.