PLL18 - Inquests - Mulenga - R43

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Expert Report in the matter of the death of

Sarah Louise Mulenga

Prepared on behalf of:

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MEDICOLEGAL CURRICULUM VITAE OF AUTHOR

I am a full time consultant anaesthetist at Gloucestershire Royal Hospital and have been in post since 1994. During sixteen of the last eighteen years my direct clinical responsibilities have included both anaesthesia and intensive care. From 2008 until 2010 I was Clinical Director of anaesthesia, critical care and chronic pain.

My qualifications include Bachelor of Medicine (1983) and Fellow of the Royal College of Anaesthetists (1989). From 1996 until 2000 I was Lead Consultant for critical care services within Gloucestershire Royal NHS Trust. I have been a College Tutor in anaesthesia and have published extensively on many aspects of anaesthesia and intensive care. From September 2004 until November 2006 I was on secondment as Chief of Anaesthesia and Intensive Care in Bermuda. I have been on the editorial board of Anaesthesia and Intensive Care Medicine, an internationally recognised journal. I have also been an Advanced Trauma and Life Support and an Advanced Paediatric Life Support Instructor.

I have prepared in excess of 155 medico legal reports over the past fifteen years and have been instructed by both Claimant and Defence. In the context of civil litigation and inquests I have given evidence in Court and to HM Coroner on a number of occasions. I have acted as an independent expert advisor for HM Coroner and for a police investigation relating to death in custody.

THIS REPORT

This report will examine aspects of the pre-hospital care administered to Ms Sarah Louise Mulenga on 9th January 2011, specifically issues of causation pertaining to her death on that day.

I can confirm that I am not aware of any conflict of interest in this case: I have no personal or professional knowledge of any of the ambulance staff involved. I have never worked in the London area or had professional interactions with members of the London Ambulance Service.

In preparing this report I have made reference to the following documents:

1. Statement of Allan Grace, Emergency Medical Technician (EMT) Level 3.
2. Statement of Samantha Jane Smith, Paramedic/Team Leader.
3. Statement of Gary Bennett, EMT Level 4.
4. Serious Incident Investigation Report
5. LA4 call sign K147 and EC50
6. Call logs CAD 2645, 2587, 2696, 2857, 3423.
7. Patient Report Forms (5)
8. Notes of interviews with Jane Kent and Lisa Turk (Student Paramedics).
9. Record of meeting at Ilford Ambulance Station with family and landlady.
10. Post mortem report of Dr S I Baithun.
11. Statement from Dr Bill Coode, Consultant in Emergency Medicine.
12. Letter of complaint from Mrs Chinwe Moneke, the Deceased's landlady.
13. Account of events from Mrs Moneke

RELEVENT HISTORY

1. Ms Mulenga's physiological status between 16.50hrs and 17.26hrs

1.1 The initial request for assistance from the ambulance service was from Ms Mulenga, a 21yr old patient who complained of "no energy, very weak, body aching and diarrhoea".

1.2 The ambulance crew, comprising of Ms Turk and Ms Kent, level 3 student paramedics, arrived at the scene at 16.50hrs. They completed a contemporaneous clinical record (LA4), documenting their assessment of the patient.

1.3 The document states that the patient refused to allow clinical observations to be taken. The tick box section of the document indicates that Ms Mulenga had a clear airway, normal breathing and a normal colour without cyanosis. She was not sweating, vomiting or fitting. She was fully conscious with a Glasgow Coma Score (GCS) of 15/15.

1.4 Ms Kent took the patient's pulse but did not document the findings. In her subsequent interview Ms Kent states that there was nothing abnormal about the pulse she palpated. Ms Kent believes that Ms Mulenga was able to talk in complete sentences, describe her symptoms, give her date of birth and choose her change of clothing.

1.5 In her interview Ms Turk describes a very similar clinical picture. Ms Turk states that, apart from a brief episode of hyperventilation, Ms Mulenga's respiratory status was normal. There was no cough or other signs of a chest infection and she was breathing normally. Her hands were not cold or clammy and she was not weak.

1.6 The ambulance crew described Ms Mulenga as "reluctant to talk" and later she refused to communicate. The ambulance crew state that Ms Mulgenga was able to transfer herself to the bathroom without assistance where she remained until they departed.

1.7 In contrast Mrs Moneke, Ms Mulenga's landlady, present when the ambulance crew attended, describes Ms Mulenga as complaining of pain all over her body. She states Ms Mulenga was unable to stand or walk unassisted and that the ambulance crew did not touch the patient or take her pulse or temperature. Immediately after the ambulance crew left Mrs Moneke noticed Ms Mulenga slumped against the toilet cistern. Approximately seven minutes later, when Ms Mulenga's sister arrived, the patient was unresponsive.

1.8 It is clear there are significant inconsistencies in the description of Ms Mulenga's physiological status as described by the paramedics compared with that described by her landlady. The overall picture as described by the ambulance crew is of a patient with diarrhoea but no systemic disturbance. It

is in contrast to the layperson's view of Mrs Moneke who suggests that Ms Mulenga was in severe pain, weak and generally unwell.

OPINION AND CAUSATION

2. What lead to Ms Mulenga's death?

2.1 The post mortem examination describes the lungs and liver as demonstrating congestion and oedema. The heart showed evidence of myocarditis (inflammation of the muscle) but there was no evidence of ischaemic heart disease. The cause of death was given as multi-organ failure secondary to viral pneumonia with no underlying, precipitating chronic health factors apart from sickle cell disease. There was no evidence of splenic infarction or other signs to indicate that the sickle cell disease was a significant factor in her demise.

2.2 The pathological evidence suggests Ms Mulenga died from multi-organ failure precipitated by a respiratory infection. In this situation, in the hours prior to death, from a physiological standpoint one would expect to see evidence of dehydration and cardiovascular collapse resulting in profoundly low blood pressure and poor peripheral perfusion. One might also see evidence of severe hypoxia (low oxygen in the blood), secondary to pulmonary infection and inadequate blood flow to the lungs. She may also have had deranged blood clotting function (DIC – disseminated intravascular coagulopathy) resulting in abnormal bleeding. Diarrhoea is not uncommon and may be as a result of impaired gut blood supply or direct involvement in the inflammatory process.

2.3 Clinically these factors might result in a patient who appears very weak, listless, pale, sweaty, breathless and semi-responsive. Severe diarrhoea might also be a feature as may have been bleeding from gums or other orifices. On examination one would normally expect the arterial blood pressure to be low and the pulse rapid and weak. One may also see impaired cognitive function that may present as reduced conscious level or even as difficult/uncooperative behaviour.

2.4 On the balance of probabilities, many of these clinical signs would have been present in the hours prior to Ms Mulenga's death. The process of sepsis, although often rapid, still takes a number of hours at the very least to progress from multi-organ failure to death, especially in an otherwise young and healthy patient. It is very unlikely that, at approximately 17.00hrs, Ms Mulenga demonstrated no clinical signs of sepsis apart from diarrheoa, yet died from multi-organ failure within the hour.

2.5 The post mortem provides no evidence to support a pathological process (such as myocardial infarction) that could be consistent with an absence of clinical signs at 17.00hrs yet that might result in sudden death a short time later. On the balance of probabilities, Ms Mulenga was seriously ill when attended by the first ambulance crew at 17.00hrs and would have exhibited clinical signs consistent with that condition.

2.6 I consider the ambulance staff may have misread the clinical signs presented to them. It is possible they took at face value Ms Mulenga's lack of cooperation when she became reluctant to talk and then refused to leave the bathroom. The reality may have been that Ms Mulenga was suffering from impaired cognitive function as part of the disease process and this was why she was behaving in a manner that was unhelpful and probably out of character. It is not an uncommon scenario whereby patients suffering from diseases with a neurological component such as an acute cerebrovascular event, infection or low blood sugar act in an aggressive/uncooperative manner.

3. What treatment would have been appropriate?

3.1 Assuming Ms Mulenga demonstrated signs and symptoms associated with an acute septic illness, particularly if there was evidence of hypotension and/or hypoxia, there were measures that the ambulance crew could have taken. If possible I would have expected the crew to have inserted an intravenous cannula and rapidly infused intravenous fluid. I would certainly have expected the administration of high flow oxygen. The most important aspect of her management should have been the urgent transfer to hospital.

4. At what time was death inevitable regardless of medical intervention?

~~4.1 On the balance of probabilities and judging by the fact that Ms Mulenga~~ suffered cardiac arrest at approximately 17.50hrs, Ms Mulenga was already critically unwell when the first ambulance crew arrived approximately an hour beforehand.

4.2 It is clear by the rapidity at which her illness progressed, the septic process was overwhelming. I consider that in any event, even with optimal treatment and immediate transfer to hospital, on the balance of probabilities, Ms Mulenga would have died in the accident and emergency department shortly after admission or a short while later whilst in intensive care.

4.3 I consider death was inevitable when Ms Mulenga suffered a cardiac arrest in an out-of-hospital environment. Had she been transferred urgently to hospital shortly after 17.00hrs it is possible, but unlikely, that cardiac arrest could have been avoided. Had she suffered cardiac arrest in hospital as opposed to at home or during transfer, the possibility of successful resuscitation from the cardiac arrest situation may have increased from essentially zero to 10 – 20%.

4.4 In summary, I consider that the immediate administration of intravenous fluids and high flow oxygen by the ambulance crew, followed by urgent hospital transfer shortly after 17.00hrs, may have increased her overall chance of survival by a small margin. Even under these circumstances, however, death was still probable.

5. Had an ambulance crew attended shortly after 16.14hrs or earlier than 16.50hrs would Ms Mulenga have died in any event?

5.1 Ms Mulenga was suffering from an aggressive, and rapidly progressive, septic illness. The management for her condition should have consisted of admission to an intensive care facility where, broadly speaking, she would have received antibiotics, intravenous fluids and inotropic cardiovascular support, oxygen and probably artificial ventilation. The earlier this management was instituted, the greater the possibility of survival.

5.2 Had Ms Mulenga presented to hospital 24hrs earlier her illness is still very likely to have progressed to a critical stage but she may have had a 30 - 60% chance of survival.

5.3 Had Ms Mulenga been admitted to hospital shortly after 17.00hrs on the day of her death she may have had a 5 - 10% chance of survival. It is likely her survival chances may have increased by a few percentage points for every hour her admission was expedited prior to 17.00hrs.

6. On balance did the actions/omissions of the ambulance crew who attended at 16.50hrs affect the outcome?

6.1 Given the nature of her illness, regardless of the actions of the ambulance crew, on the balance of probabilities, Ms Mulenga would have died in any event.

6.2 I consider that, had the ambulance crew acted differently, the possibility of overall, long-term survival may have increased by a small margin.

A McCrirrick