



OFFICE OF THE STATE CORONER

**NON-INQUEST FINDINGS OF THE
INVESTIGATION INTO THE DEATH OF O**

CITATION: Investigation into the death of O

TITLE OF COURT: Coroner's Court

JURISDICTION: Brisbane

FINDINGS OF: Mr John Lock, Deputy State Coroner

CATCHWORDS: CORONERS: Anaesthetics, AHPRA and HQCC investigation, unsatisfactory professional performance.

Introduction

O was an 82 year old man who underwent surgery at Redcliffe Hospital for internal fixation of his fractured right ankle on 11 May 2011. In the course of the operation there was a peri-operative cardiac arrest from which he was successfully resuscitated but from which he never regained consciousness. He was declared deceased on 16 May 2011. Prior to the surgery, there was some monitoring of O's heart, which showed atrial fibrillation.

A Root Cause Analysis (RCA) was commissioned by the hospital but stopped due to a blameworthy event being identified. A number of allegations were made against Dr H, the anaesthetist for the surgery. The allegations were that:

- Dr H failed to identify that O's vital signs had deteriorated to the extent emergency intervention was required.
- Dr H failed to intubate O in order to ensure adequate ventilation and failed to take advice from clinical staff in this regard.
- Dr H directed nursing staff not to push the emergency button that would have summonsed medical assistance to deal with the emergency.
- As a result of Dr H's actions and/or departure from normal practices, O was placed on life support systems and later died when those systems were removed.

Report to the Coroner

O's death was reported to the coroner on 16 May 2011. It was evident from the start that the actions of the anaesthetist were of considerable concern. The allegations against the anaesthetist were that during the operation he failed to identify that the patient's vital signs had deteriorated to the extent emergency intervention was required. It was further alleged that the anaesthetist failed to intubate the patient in order to ensure adequate ventilation and failed to take advice from clinical staff in this regard. It was further alleged that the anaesthetist directed nursing staff not to push the emergency button that would have summonsed for medical assistance to deal with the patient emergency. It was considered that as a result of his actions there was a departure from normal practices.

The hospital immediately referred the allegations to the Queensland Health Ethical Standards Unit. Further reports were made to the Australian Health Practitioner Regulation Authority (AHPRA) and the Health Quality Complaints Commission. The hospital was also reviewing other matters where patients had died or suffered permanent injuries as a result of alleged improper treatment by the anaesthetist.

Two of those deaths were previously the subject of reports to the Office of the State Coroner, and assistance was given to the investigation by providing details of those reported deaths including autopsy results.

Dr H was suspended by Queensland Health on 20 May 2011 with his employment terminated in 2013. Conditions were imposed under the immediate action provisions of the National Law on 10 June 2011.

Dr H sought review of the conditions through QCAT on 29 July 2011 however those proceedings were ongoing in 2014. He had not practiced for two years since the imposition of conditions on his registration.

Autopsy Examination

The coroner ordered an autopsy examination.

The cause of death was hypoxic-ischaemic encephalopathy due to cardiac arrest as a result of a fractured right fibula (surgically treated).

The autopsy found evidence of significant hypoxic brain injury.

Other significant findings included the presence of pulmonary embolism and deep vein thrombosis. Predisposing factors for the presence of this condition may have included the immobility consequent upon breaking his right leg as well as a plaster on the leg decreasing the ability for blood to flow through the leg veins.

The heart was also heavy and dilated. The coronary arteries showed moderate coronary atherosclerosis (narrowing of the arteries to the heart). Both of these conditions may be sufficient to precipitate abnormal heart rhythms, loss of output and cardiac arrest.

The forensic pathologist considered in his summary that the precipitating event for the hypoxic ischaemic encephalopathy was a cardiac arrest, which occurred in the perioperative period some five days prior to death. The cause for the cardiac arrest was obscure with the two major possibilities including pulmonary embolism and a primal abnormal heart rhythm. There was no way of categorically deciding which of these two possibilities had caused the cardiac arrest. However, it was overwhelmingly likely that, had he not fallen and broken his leg, then he would not have passed away when he did. In this sense, then, whether mediated through pulmonary embolism or cardiomyopathy, the underlying cause of death was his fractured lower fibula. A pulmonary embolus may have contributed directly by occurring at the time of cardiac arrest. The pathological features were consistent with this timeframe. However, it was also possible that, during surgery, his diseased heart may have been predisposed into going into an abnormal rhythm precipitating hypertension and progressing to cardiac arrest.

The pathologist noted that it was tempting to ascribe the perioperative event of pulmonary embolism given that it is a traumatic finding associated with focal pulmonary infarction. However, he had reservations about this in that the clinical progress appears to have been a gradual evolution over 30 to 45 min of hypertension associated with abnormally slow heart rhythm, which was described as possibly representing atrial flutter. There was then the onset of pulseless electrical activity. A catastrophic pulmonary embolism may be more

expected to be associated with his sudden onset of hypertension tachycardia or if particularly severe, the onset of pulseless electrical activity. The pathologist considered that it was entirely possible that the perioperative event may have had its basis as a primary cardiac phenomenon in an elderly man with cardiomyopathy in the context of anesthesia.

The autopsy found a markedly enlarged and heavy heart, which was dilated and there was associated moderate coronary artery disease. The clinical data appeared to be more consistent with a primary cardiac event occurring at a critical time. He considered therefore that cardiomyopathy played the more significant role in the perioperative event leading up to cardiac arrest. However, both could probably have contributed to his death.

Review by Clinical Forensic Medicine Unit (CFMU)

The CFMU were requested to advise the coroner in relation to O's care as it directly related to his pre-operative assessment as other issues relating to his decline in the peri-operative period were being managed by AHPRA.

Dr Griffin advised that O fell at home and fractured his ankle. His initial assessment included eliciting reasons for his fall as well as diagnosing the fracture. This initial assessment was thorough and identified specific risk factors and excluded significant intracranial trauma. He was admitted initially under a cardiologist to exclude a rhythm disturbance of the heart as a cause. Monitoring revealed occasional 'pauses' or missed/delayed heart beats. These were asymptomatic and thought to be related to the medication Bisoprolol (a known side effect) and this medication was titrated down.

O initially requested no surgical intervention. He was assessed by the Orthogeriatric Medical registrar (a training physician who manages clinical problems for orthopedic patients) on 6 May. He assessed him for his current medical problems but in the light of no surgical intervention. That is, this would not be considered a pre-operative assessment.

On the 7 May, O was seen by an orthopedic registrar who indicated O had changed his mind regarding an operation and now requested surgery. A note from Dr Aubrey (an orthopedic doctor) requested an anesthetic review prior to the operation. Dr Aubrey is the doctor who signed the consent form. All patients should be reviewed by an anesthetist prior to any operation, particularly those with medical complaints of any description.

An entry on the 9 May asks for an anesthetic review that day in view of surgery on the 11 May.

On the 10 May, there is an entry by Dr H on the front of the Anesthetic Record that records his medical history. This assessment does not include his airway assessment, neck movement assessment, risk assessment or instructions regarding medication. There is a space on the form for consent, risks and when fasting should be started that are also not completed.

A pre-operative assessment was performed by the anesthetist but is

incomplete. It does demonstrate knowledge of O's medical conditions but is incomplete in terms of a full anesthetic assessment.

AHPRA investigation

AHPRA commenced an investigation in relation to Dr H's conduct in relation to this death and other patients.

AHPRA obtained a peer opinion report in regard to Dr H's performance with respect to O's treatment at Redcliffe Hospital.

On 16 January 2014, the Queensland Medical Interim Notifications Group of the Medical Board of Australia (the Committee) considered the investigator's report and decided there was sufficient evidence on which to form a reasonable belief that the practitioner's performance amounted to unsatisfactory professional performance, in that he did not obtain appropriate assistance in a timely manner to address the clinical deterioration of patients, including the case of O.

Expert Opinion

An expert opinion was obtained from a consultant anesthetist, Dr Martin Wakefield. His opinion included:

1. Dr H did not have an appropriate appreciation of the deteriorating condition of O during his surgery and did not respond to the evolving crisis in a timely manner. Dr H should have been more aggressive in his management of the developing hypotension, hypoxia and hypercarbia. He should have obtained assistance earlier as it was very difficult for one person to adequately deal with the crisis that was developing.
2. The pre-operative assessment done on O and Dr H's own notes on the case indicate that he recognized there were significant cardiac issues relating to this case. With this in mind Dr H should have been more aware and more proactive in treating the developing hypotension.
3. Dr H had responded to the allegations of sub-standard management and underwent remedial courses as advised. Whether these courses changed/improved his practice in crisis management or improved his non-technical skills was hard to judge.

Decision of AHPRA

The committee was of the opinion that some form of conditions may be appropriate to deal with the performance issues identified in the investigation. Accordingly, the committee required Dr H to undergo a performance assessment.

The assessors were of the opinion that the performance of Dr H was below the standard that is expected of the practitioner's peers or the public.

On 20 March 2014, the Medical Board of Australia decided to accept a

schedule of undertakings proffered by Dr H under the National Law, in lieu of proposed conditions.

Those undertakings included an agreement to only practice in a position approved in writing by the Medical Board. The return to practice was by way of a tailored re-entry program which would be structured and sponsored by a supervisor.

Any practice would be under a level III supervision by a senior registered medical practitioner approved by the Medical Board prior to his return to practice and for a period of four months from return.

He further agreed to participate in a mentoring arrangement with a senior mentor to be approved in writing by the board, for a period of 12 months.

He further undertook to notify all employers of the undertakings.

Conclusion

I do not propose to hold an inquest because the investigation has revealed sufficient information to enable me to make findings about O's death and there does not appear to be any prospect of making recommendations that would reduce the likelihood of similar deaths occurring in future or otherwise contributing to public health and safety or the administration of justice.

In particular, in this case the disciplinary body responsible for registration of Medical Practitioner's has completed an investigation and made a determination regarding his future practice.

John Lock
Deputy State Coroner
Brisbane
20 June 2014