



MAGISTRATES COURT of TASMANIA  
CORONIAL DIVISION



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## Record of Investigation into Death (Without Inquest)

*Coroners Act 1995  
Coroners Rules 2006  
Rule 11*

I, Rod Chandler, Coroner, having investigated the death of Odissefs Paraskevas

**Find, pursuant to section 28(1) of the Coroners Act 1995, that:**

- a) The identity of the deceased is Odissefs Paraskevas;
- b) Mr Paraskevas was born in Greece on 25 September 1960 and was aged 56 years;
- c) Mr Paraskevas died on 30 January 2017 in New Norfolk; and
- d) The cause of Mr Paraskevas' death was pulmonary thromboembolism due to left deep vein thrombosis.

### **Background**

Mr Paraskevas was married to Anastasia Paraskevas. They resided at New Norfolk and both worked in their family business. Mr Paraskevas' medical history included hypertension and elevated cholesterol.

### **Circumstances Surrounding the Death**

On 18 December 2016 Mr Paraskevas, with his wife, travelled to Greece to visit his father who had been suffering ill health. They travelled by air and the flight time was approximately 22 hours. Mr Paraskevas fell ill after they had been in Greece for about one week. He complained of mild chest pain and shortness of breath. He saw a local doctor who diagnosed pneumonia and a chest infection. He was prescribed a steroid and an antibiotic.

Mr and Mrs Paraskevas returned to Tasmania on around 13 January 2017. Mr Paraskevas continued to complain of shortness of breath and chest pain. He found it difficult to work. On 20 January he went to see Dr Mark McCoid at the Davey Street Medical Centre (he was normally a patient of the New Norfolk Medical Centre but they were unable to give him an early appointment). Dr McCoid recorded that Mr Paraskevas had a respiratory infection in Greece. He noted that he remained short of breath on exertion but had no cough. He did not record chest pain as a symptom. The blood pressure was 129/87 mmHg and the heart rate was 109 bpm. He was afebrile with a clear chest and normal heart sounds. There was no unilateral swelling or calf tenderness. Blood tests were ordered along with a chest x-ray. The plan was to review Mr Paraskevas in 10 days.

The chest x-ray was performed on 25 January. The main findings were borderline cardiomegaly and clear lung fields. A full blood count done on the same day was normal. No D-dimer test was performed.

In the morning of 30 January Mrs Paraskevas had been working downstairs in the family business. She went upstairs at around 9.30am to check on her husband. He was awake and she gave him some breakfast. He told her that he still did not feel well. At around 12.00pm Mrs Paraskevas went upstairs to check on her husband again. She found him slumped forward in a chair. He was unresponsive and did not appear to be breathing. An ambulance was called and promptly attended. It was evident to the attending paramedics that Mr Paraskevas had died.

### **Post-Mortem Report**

This was carried out by State Forensic Pathologist, Dr Christopher Lawrence. His report includes this statement:

*“Autopsy reveals extensive pulmonary thromboemboli with a swollen left calf which suggests the probable source of the deep vein thrombosis. It is likely that he was experiencing both the deep vein thrombosis and the pulmonary emboli in Greece. Mr Paraskevas’ risk factors for pulmonary embolism include air travel, an enlarged heart and obesity.”*

In Dr Lawrence’s opinion, the cause of Mr Paraskevas’ death was pulmonary thromboemboli due to a left deep vein thrombosis.

### **Investigation**

This was informed by:

1. A Police Report of Death.
2. An affidavit from Mrs Paraskevas.
3. Consideration of Mr Paraskevas’ records at the Davey Street Medical Centre.
4. Reports from Dr A J Bell as medical adviser to the coroner.

Dr Bell brought to my notice a 2018 research paper published by the Royal Australasian College of Physicians (RACP) in the Internal Medicine Journal and entitled ‘Update on Diagnosis and Anticoagulant Therapy for Venous Thromboembolism.’ The paper sets out the recommended course to be followed in the evaluation of suspected pulmonary embolism (PE). A summary of the course is:

1. Utilise the Wells score to stratify a patient’s risk of PE.
2. If the Wells score indicates a PE to be likely then the patient should undergo a computed tomography pulmonary angiography (CTPA). A negative CTPA excludes a PE.
3. If the Wells score indicates a PE to be unlikely then the Pulmonary Embolism Rule-Out Criteria (PERC) should be applied. Its purpose is to stratify patients into those

who need a D-dimer performed to exclude a PE and those who do not. The PERC are:

- a. Age <50.
  - b. Pulse <100 beats per minute.
  - c. Oxygen saturation >95% on room air.
  - d. No exogenous oestrogen.
  - e. No prior VTE.
  - f. No surgery or trauma within 4 weeks.
  - g. No unilateral leg swelling.
4. If all the PERC are met no further investigation for a PE is necessary.
  5. If one or more of the PERC is not satisfied then a D-dimer should be performed.
  6. A negative D-dimer excludes a PE. A positive D-dimer requires the patient to have imaging, preferably a CTPA.

In his reports Dr Bell includes these observations:

- a) That PE is a common and sometimes fatal condition. It has a wide range of presenting features. The most common symptom is dyspnoea (shortness of breath) followed by chest pain and cough. However, many patients, including those with a large pulmonary embolism, have mild or nonspecific symptoms or are asymptomatic. The most common sign on clinical examination is tachycardia (fast heartbeat).
- b) The clinical diagnosis of PE can be difficult.
- c) A D-dimer is a blood test used to rule out the presence of a blood clot. A negative or normal result means that it is most unlikely that a person has an abnormal clot. A positive result indicates that there may be a significant blood clot or thrombus but does not identify its location or cause.
- d) In this case, there were clues suggesting that Mr Paraskevas may have been suffering from a PE and the diagnosis should have been considered. Those clues included the shortness of breath, a normal clinical examination and an elevated heart rate with normal heart sounds.
- e) For Mr Paraskevas a positive D-dimer result would have necessitated an urgent CTPA which would probably have shown pulmonary thromboemboli. Treatment involves the immediate commencement of a course of anticoagulant medication. If appropriately and speedily treated there was a good prospect of Mr Paraskevas surviving his deep vein thrombosis.
- f) Long haul airflights can be a hint to a PE diagnosis.

During the course of the investigative process Dr McCoid was provided with copies of Dr Bell's reports along with the RACP research paper. He provided two helpful reports in response which incorporated these salient points:

- i. That chest pain was not displayed when he auscultated Mr Paraskevas' chest. Had it been he says that he would have taken steps to assess whether it was cardiac related, musculoskeletal or lung based.
- ii. That he examined Mr Paraskevas' legs and did not detect any unilateral swelling or calf tenderness. (At autopsy the left calf diameter was 45 cm and the right calf was

- 44cm diameter. This difference would not usually be detectable on clinical examination).
- iii. That had pleuritic chest pain been present and/or unilateral calf swelling and/or tenderness, then a differential diagnosis of PE would have been more likely.
  - iv. That the diagnosis made when Mr Paraskevas was in Greece played no part in Dr McCoid's assessment undertaken on 20 January 2017.
  - v. That he diagnosed Mr Paraskevas with heart failure exacerbated by chronic lung disease, morbid obesity, poor cardiovascular fitness, probable underlying ischaemic heart disease and with mild decompensation following a recent reported respiratory infection.
  - vi. That he did not order a D-dimer test because Mr Paraskevas did not meet the criteria set by the Wells score. Whilst it may have been possible to order a D-dimer under the Charlotte rule he did not consider it warranted in his clinical judgement. Most particularly there was a lack of unilateral leg swelling or calf pain to suggest deep vein thrombosis (DVT).
  - vii. Dr McCoid accepts that events have established that Mr Paraskevas had a concurrent diagnosis of DVT or PE either at the time of his examination or shortly afterwards.

### **Findings, Comments and Recommendations**

I accept Dr Lawrence's opinion upon the cause of death.

The evidence permits me to make these further findings:

1. PE is a condition which can be difficult to diagnose.
2. In all likelihood Mr Paraskevas was suffering from PE when he presented to Dr McCoid on 20 January 2017.
3. Dr McCoid did not cite PE as a differential diagnosis for Mr Paraskevas and hence did not initiate steps to investigate this condition.
4. The decision by Dr McCoid not to investigate PE was based upon clinical grounds, most particularly the clinical absence of DVT.

Tragically Mr Paraskevas' death is an illustration of the outcome when the diagnosis of PE is not made. It is fortuitous that the paper recently published by the RACP is now in the public domain as it sets out a very helpful guide to govern the evaluation of a patient suspected to be suffering from PE. Strict application of that guide in Mr Paraskevas' case would have invoked PERC which would, in turn, have mandated a D-dimer test because Mr Paraskevas met two of the criteria, namely he was over 50 years and his heart beat exceeded 100bpm. (This would have been so notwithstanding that Mr Paraskevas did not demonstrate any discernible signs of DVT). In all likelihood, the D-dimer would have revealed clotting which would have led to an urgent CTPA followed by anticoagulation. I am unable to positively find that Mr Paraskevas' death would have been avoided if this scenario had evolved. Nevertheless, it would have given him the best prospect of survival.

This case leads me to **recommend** that medical practitioners, most particularly those in general practice, familiarise themselves with and apply the guide for the evaluation of suspected PE set out in the research paper which I have referred to.

I have decided not to hold a public inquest into this death because my investigation has sufficiently disclosed the identity of the deceased, the date, place, cause of death, relevant circumstances concerning how his death occurred and the particulars needed to register his death under the *Births, Deaths and Marriages Registration Act 1999*. I do not consider that the holding of a public inquest would elicit any significant information further to that disclosed by the investigation conducted by me.

I convey my sincere condolences to Mr Paraskevas' family and loved ones.

**Dated:** 8th day of March 2019 at Hobart in the State of Tasmania.

**Rod Chandler**  
**Coroner**