

A Victorian Government

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### EDITORIAL

Welcome to the second issue of 2009. This also marks the 10th edition of the Residential Aged Care Communiqué. The focus of this issue is to consolidate the learning from the previous four clinical topics covered: wound care; diabetes mellitus; warfarin and pneumonia.

There are four cases, one from each clinical topic and our challenge is to identify the common themes in these disparate topics.

FRAILTY, FALLS AND WOUND CARE

### CASE NUMBER 2545/07

Case Precis Author: Prof Joseph E Ibrahim, Consultant Physician (CLS)

### CLINICAL SUMMARY

Ms C was an 86 year old female resident who required high level care at a rural Residential Aged Care Service (RACS). Her past medical history included atrial fibrillation and diabetes mellitus.

Ms C had a fall, sustaining a fractured neck of femur requiring an admission to a regional base hospital for surgery. The surgery was uncomplicated and Ms C was transferred to a rural hospital closer to the RACS for post-operative care.

She developed sacral pressure sores and pneumonia in hospital over the next month and died. A death certificate was issued and the death was not reported to the coroner.

### PATHOLOGY

The cause of death was 1(a). Sacral pressure sores and pneumonia 1(b). Fractured right neck of femur with surgery, 1(c). Mechanical fall, (2). Dementia, diabetes mellitus and atrial fibrillation.

### INVESTIGATION

The Registrar of Births, Deaths and Marriages reported the death to the coroner because it was considered that the death may have related to the fall.

The coroner directed an investigation involving a review of the medical records by a forensic pathologist who arrived at the cause of death.

### CORONER'S COMMENTS AND FINDINGS

The case was closed without any other comments.

### AUTHOR COMMENTS

More information about the reporting of fall-related deaths and the Registry of Births, Deaths and Marriages is described in RAC-CC Volume 3 Issue 2 April 2008 (page 3).

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initiative

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Our other publication the Coronial Communiqué can be found on our website at: http://www.vifm.org/n961.html

### DIABETES MELLITUS; AN INSIDIOUS LONG-TERM DISEASE

### CASE NUMBER 2965/04

Case Precis Author: Prof Joseph E Ibrahim, Consultant Physician (CLS)

### CLINICAL SUMMARY

Ms R was a 73 year old female with a past medical history of diabetes mellitus, renal failure, anaemia, back pain and ischaemic heart disease. Ms R's health gradually deteriorated over three weeks causing significant difficulty coping at home, and eventually requiring admission to a large metropolitan acute hospital.

Extensive care was required for managing and stabilising the multiple medical problems, including leg ulcers, necrotic feet and gangrenous toes. Almost two months later Ms R was transferred to a Residential Aged Care Service (RACS) that provided the required high level care. Several weeks later Ms R was re-admitted to hospital because of significant pain and an overall deterioration in health. Ms R died in hospital.

### PATHOLOGY

There was no autopsy performed and the cause of death was recorded as: 1(a) Bacterial septicemia and leg ulceration with sacral ulceration and abscesses.

### INVESTIGATION

The coroner directed that further investigation was required after receipt

of a letter of complaint about Ms R's treatment at the RACS. Statements were received from the RACS staff and Ms R's general practitioner who explained the overall management of Ms R's condition, with particular relevance to care of her leg wounds.

## CORONER'S COMMENTS AND FINDINGS

The coroner concluded that Ms R suffered significant medical problems and her deterioration and subsequent demise was not unexpected. The coroner closed the investigation with a Chambers Finding.

### AUTHOR COMMENTS

This case highlights the important clinical aspects of diabetes mellitus, a disease that affects all the major organ systems of the body. The diabetes mellitus would have contributed to the renal failure, ischaemic heart disease, the development of leg ulcers and necrotic feet. In addition, diabetes mellitus lowers a person's immunity to infection and reduces the ability to heal wounds.

This case also highlights aspects of the medico-legal death investigation demonstrating the importance of detailed and accurate information to assist the coroner. It reassures the public because the investigation is an open process and is external to the care providers.

### HIGH INR: ANOTHER LESSON FROM THE PAST

### CASE NUMBER 1725/98

Case Precis Author: Carmel Young, RN (CLS)

### INTRODUCTION

Warfarin is effective in the treatment and prevention of many venous thromboembolic disorders with the known complication of increased risk of bleeding. This case is a death that occurred over ten years ago.

### CLINICAL SUMMARY

Ms C was a 91 year old female with a past medical history of cerebrovascular disease who lived in a Residential Aged Care Facility and required a high level of care for the past year. Her prescribed medications included warfarin to reduce the risk of another stroke.

Ms C was found on the floor in her room bleeding from the nose, ear and right elbow. An ambulance transferred her to hospital where Ms C's condition deteriorated further. The blood test to assess the effect of the warfarin taken the following day was elevated with an International Normalised Ratio (INR) result of 5.9.

### PATHOLOGY

The cause of death following an autopsy was 1 (a) Exsanguination and 1 (b) Fractured pelvis, and (2) Warfarin therapy for cerebrovascular accident.

### INVESTIGATION

The coroner's investigation included a review of Ms C's management and the testing and notification procedures and protocols for the monitoring of warfarin.

Ms C had been stabilised on warfarin for some time and the INR result, nine days before the fall and admission to hospital, was within the therapeutic range.

Ms C's INR had de-stabilised sometime between the two tests. It is not known what factor or factors caused the change.

## CORONER'S COMMENTS AND FINDINGS

The coroner made no finding as to contribution in relation to the death and the investigation was closed with a Chambers Finding.

### AUTHOR COMMENTS

Warfarin has a very narrow therapeutic window. Changes in diet, activity, and other medication (e.g., antibiotics) may impact on the level of anticoagulation. Therefore, monitoring using pathology testing of INR and periodic review of the indications for prescribing are required. Also, regular reviews by the medical practitioner and pharmacist about the risks and benefits of anticoagulant therapy is necessary.

### THE INEVITABILITY OF BRONCHOPNEUMONIA?

### CASE NUMBER 1674/04

Case Precis Author: Prof Joseph E Ibrahim, Consultant Physician (CLS)

### CLINICAL SUMMARY

Mr B was an 84 year old male with a past medical history of dementia, Parkinson's disease, stroke, diabetes mellitus and anxiety. He required high level care at a Residential Aged Care Service. He had an unwitnessed fall and fractured his neck of femur. He was transferred to a metropolitan acute hospital for surgery and returned to the RACS within a week.

Several weeks later, a hip prosthesis dislocated requiring readmission to hospital for treatment. Unfortunately, two hours after returning to the RACS the hip prosthesis dislocated a second time. A third visit to the acute hospital was required for a Girdlestone's procedure (operative removal of the femoral head). Mr B subsequently developed a chest infection and died.

### PATHOLOGY

The cause of death following an inspection by a forensic pathologist was bronchopneumonia and fractured left neck of femur (operations). Contributing factors were diabetes mellitus and dementia.

### CORONER'S COMMENTS AND FINDINGS

The coroner made a finding that Mr B died from complications of suffering a fall. The investigation was closed with a Chambers Finding.

### AUTHOR COMMENTS

This is a classic clinical scenario of bronchopneumonia and perhaps the inevitability of this disease. The pre-existing conditions of dementia, Parkinson's disease, stroke and diabetes mellitus all predispose a person to chest infections. The bed rest following the fall and surgery for the femoral fracture, and subsequent dislocations of the hip prosthesis, are the final contributing factors.

This case illustrates the complexity of managing frail older persons and the need to be pro-active in falls prevention, optimising management of multiple clinical conditions and mobilising as soon as practicable.

Some may argue that bronchopneumonia is inevitable, especially in this situation and nothing would have altered the outcome. However, the hazard of adopting such a fatalistic approach is to fail to review our practice.

### LIST OF RESOURCES

Check the following RAC-Coronial Communiqués available at: http://www. vifm.org/n963.html

1. RAC-Coronial Communiqué Volume 3 Issue 3 June 2008. The theme is wound care and this issue has comprehensive information about the research evidence base and current practice in the prevention, recognition and management of pressure ulcers.

2. RAC-Coronial Communiqué Volume 3 Issue 4 September 2008. The theme is Diabetes mellitus. This is an important condition to manage well because of the widespread impact on the body. It illustrates the need for awareness, preparation and having a systematic approach to managing residents with diabetes mellitus. Practical information for improving practice is provided.

3. RAC-Coronial Communiqué Volume 3 Issue 5 December 2008. This issue focuses on the well known dangers and benefits of warfarin. It reminds us about how to improve the systems and practices for safer use of this medication. An expert commentary by a haematologist and pharmacist is included. 4. RAC-Coronial Communiqué Volume 4 Issue 1 March 2009. The theme is pneumonia and this issue highlights the need to be proactive in the prevention of natural cause deaths. It reminds us of the importance of vaccination to protect staff and residents from respiratory infections.

All cases that are discussed in the Residential Aged Care Coronial Communiqué are public documents. A document becomes public once the coronial investigation process has been completed and the case is closed. We have made every attempt to ensure that individual clinicians and hospitals are de-identified. However, if you would like to examine the case in greater detail, we have also provided the coronial case number.