



A combined Victorian Institute  
of Forensic Medicine and  
State Coroner's Office publication.

# CORONIAL COMMUNIQUE

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## EDITORIAL

This year is proving to be another busy and fulfilling year for the Clinical Liaison Service. This August 2008 issue is the 16th Coronal Communiqué. The year has seen over 250 detailed clinical case reviews completed, the return of the "Open Days" with 50 participants in June, and we recently welcomed a delegation of medical and legal experts from Japan who were keen to examine the Victorian model for death investigations.

This issue includes two detailed cases summaries that explore the different lessons around the obtaining, acknowledging, considering and acting upon expert clinical advice. Short summaries of recently closed cases are included, along with a section in response to a number of queries from hospitals about the recent changes to obtaining autopsy reports.

We thank our readers for their ongoing support and encouraging feedback that the information provided in the Communiqué assists changes to practices for better health care. Please feel free to send us your comments about the Coronal Communiqué.

## HOW DOES A HOSPITAL GET AN AUTOPSY REPORT?

There has been a recent process change for hospitals obtaining autopsy reports. This has occurred to protect the privacy of families and to ensure the integrity of coronial investigations. There is now a centralised process in which a hospital representative must apply in writing for a copy of the autopsy report. It will need to be written on a hospital letterhead and addressed to a Coroner's Registrar and faxed to (03) 9686 1506. The reason for wanting the report should be specified (usually the fact that the deceased was a patient of the hospital will be adequate). Further, a request to be listed as an interested party should be made, which will result in future communications relating to the case being sent to your hospital including the Findings once the investigation is completed. Your request will be considered by the coroner who has carriage of the case and, in the vast majority of cases, the request will be granted. Once the hospital receives the autopsy report it may be distributed to clinicians who were directly involved in the care of the deceased as well as other relevant staff such as heads of departments, members of mortality review committees and other hospital services working on improving clinical care and patient safety.

## READERS' FEEDBACK

As a General Manager [of an aged care facility], having read the Communiqué [March 2008] and noting with particular relevance two of the cases reported, we will now be covering over a number of meetings:

Review of our restraint policy, procedure and training to ensure all staff are adequately trained in the use of restraint when, on the very rare occurrence, restraint is used.

All staff will receive an in-service on the importance of family/visitor feedback on the resident's condition or perceived change in condition; pathology results and what

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CONNECTING CLINICIANS AND COMMUNITY WITH CORONERS

## FEEDBACK

The CLS team is keen to receive feedback about this communication especially in relation to changes in clinical practice.

Please email your comments, questions and suggestions to: [cls@vifm.org](mailto:cls@vifm.org)

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All publications produced by the Specialist Investigations Unit, including the Residential Aged Care Coronial Communiqué and WORKWISE can be found on our website at <http://www.vifm.org/n961.html>

## 2008 VIFM ORATION

The Victorian Institute of Forensic Medicine will be hosting its triennial Oration on Wednesday October 8th 2008 at 5pm. It forms part of our 20th birthday celebrations and we are delighted to be able to welcome the Honourable Stephen Goudge, Justice of the Ontario Court of Appeal to speak about his time as Commissioner inquiring into paediatric forensic pathology in Ontario, Canada. He will talk about his reflections on, and lessons to be learned from, this failure in the forensic pathology system and its consequences for the criminal justice system.

The Oration will take place at Zinc, at Federation Square, Melbourne and everyone is invited to attend.

Please register at the VIFM web site [www.vifm.org/20years.html](http://www.vifm.org/20years.html) or contact Siobhan Gillen for more details on (03) 9684 4301 or via [20years@vifm.org](mailto:20years@vifm.org).

## READERS' FEEDBACK continued

they mean, normal and abnormal; reporting mechanisms of abnormal results and actions to be taken.

We find this subscription extremely beneficial as it highlights the cases that could have been prevented and enables us to be proactive in our system management to try and prevent, or minimise these issues. The reporting is succinct and in plain English, which makes it easy for all levels of staff, and staff from Culturally and Linguistically Diverse Backgrounds to be able to understand its content and meaning.

## RECENTLY CLOSED CASES

**4179/04** A 59 year old female with a medical history which included hypertension and obesity (Body Mass Index >40) presented to her general practitioner complaining of abdominal pain and no bowel action for two days. She was treated with suppositories for constipation and died later that day. The cause of death following an autopsy was septicaemia.

**2563/05** A 74 year old male was admitted to hospital for investigation of a pleural effusion. On the ward he had an unwitnessed fall and was placed on regular neurological observations and cardiac monitoring. Throughout the day, he was reviewed on multiple occasions for a headache and nose bleeds. A CT brain scan was requested when the headache worsened overnight but this was not performed on the basis that the patient's Glasgow Coma Score was normal i.e., 15/15. The patient died a few hours later. The cause of death following an autopsy was a subdural haemorrhage.

**4338/05** A 53 year old female with a medical history of ischaemic heart disease and renal failure was admitted to hospital with alcohol toxicity and depression. While in hospital she developed fever and was commenced on antibiotics for cellulitis of the arm. She was also prescribed oral potassium supplements for a noted serum potassium level of 3.3 mmol/L (normal range 3.5-5 mmol/L). Over the next 48 hours she became increasingly unwell, had an asystolic arrest and died. The results of blood tests taken two hours prior to asystolic arrest were conveyed to the ward shortly after she was pronounced deceased. Serum potassium was 9.7 mmol/L. The cause of death was hyperkalaemia and acute renal failure and sepsis.

**4478/05** A 73 year old male with a past medical history of pulmonary embolism was admitted to hospital with a swollen thigh. An ultrasound examination demonstrated a large deep vein thrombosis. An incidental diagnosis was made of a large thoraco-abdominal aortic aneurysm, which appeared to be compressing the deep venous system. He was commenced on heparin therapy and insertion of an inferior vena cava filter was attempted unsuccessfully. He underwent surgery for repair of the aortic aneurysm and subsequently died intraoperatively from complications of uncontrollable blood loss.

**3172/07** An 88 year old female underwent a hemicolectomy for a perforated colon secondary to bowel cancer and was transferred to a rehabilitation facility post-operatively. A few weeks later an outbreak of Norovirus Gastroenteritis occurred at the facility. During that period, she developed abdominal pain, vomiting and increased stomal output with black-coloured material. Readmission to hospital was required for treatment of suspected gastroenteritis and gastrointestinal bleeding. Despite therapy she died the following day. Cause of death following an autopsy was ischaemic small bowel secondary to amyloid angiopathy. The pathologist reported that the gastrointestinal symptoms were most in keeping with ischaemic bowel with no evidence of an infective aetiology as in gastroenteritis.

## THE PERILS OF NASOGASTRIC TUBES

**CASE NUMBER:** 1602/03

**Case Precis Author:** Dr Adam O'Brien  
FACEM, CLS

### CLINICAL SUMMARY

A 15 month old female consumed an unknown quantity of ibuprofen tablets and was taken to a rural hospital. On arrival the child was described as "... her happy, cheerful self, running up and down the corridor and jibbering to other patients." However, "within 20 minutes she was asleep".

The medical practitioner on duty was a general practice registrar (GP-R) who sought and received advice from the hospital's general practice anaesthetist (GP-A), and externally from a Poisons Information Centre and a Retrieval Service. The advice provided by the Services was to administer charcoal while awaiting the Retrieval Team. The GP-R and GP-A deliberated the need to intubate the deceased, however, a decision was made not to, and to administer activated charcoal through a nasogastric tube (NGT). Very shortly after the charcoal administration commenced the deceased "coughed, went blue and listless and then stopped breathing".

The deceased was resuscitated and an hour later the Retrieval Service arrived and airlifted her to a Paediatric Intensive Care Unit. She died several days later despite intensive measures.

### PATHOLOGY

The cause of death following an autopsy was cerebral infarction complicating extracorporeal membrane oxygenation for treatment of inhaled activated charcoal administration following ibuprofen overdose.

### INVESTIGATION

The patient's family, staff at the rural and the receiving tertiary hospitals and

both the Poisons Information Centre and Retrieval Service provided statements.

The rural hospital expressed concerns regarding the advice given to staff at the emergency department by the Retrieval Service during the management of the suspected ibuprofen overdose. It was alleged that inadequate advice was provided, adding that, "advice... in situations like this [need to] be more appropriate and mindful of the circumstances found in many rural hospitals."

The Retrieval Service responded by stating that "precisely the same advice was given by the Poisons Information [Service which] was rung about half an hour after the ingestion."

Two expert opinions were sought. One analysed an ante-mortem sample taken from the child and calculated that the "level was toxic and significant but by no means a fatal concentration as documented in the literature."

An inquest heard evidence from those involved in the case and the experts. At the inquest, the coroner focused on whether the advice proffered by the Services was appropriate and adequate and whether the actions of the rural doctors (including the decision to administer charcoal and the timing and placement of the NGT) were adequate and appropriate to the circumstances.

It was noted that despite being a toxic overdose and requiring activation of a Retrieval Service, the situation did not come to the attention of a toxicologist following which a risk-benefit discussion could have occurred at the most appropriate senior level.

The initial contact with the Poisonings Service was less than twenty minutes post-ingestion and the advice given was appropriate according to one expert. "However, by the time [the deceased] actually received charcoal it was two hours post-ingestion. At this time...any potential advantage would be minimal."

## CORONER'S COMMENTS & FINDINGS

The first fundamental finding made by the coroner was that there was a connection between the administration of charcoal and death. The deliberate "cure" became the cause of death. Had the decision been taken not to administer the activated charcoal but to monitor the deceased and provide supportive care until arrival of the Retrieval Service [she] would in all likelihood be alive today. The coroner was not critical of the advice provided by the Services, as it was very much standard fare, as far as it went. The coroner considered that when the NGT was inserted and the administration of charcoal commenced the deceased was able to protect her own airway, but that the position of the NGT was not validated with an x-ray or litmus paper. There was also doubt that auscultation was performed. As she collapsed virtually immediately upon administration there was a strong likelihood the charcoal directly entered her lungs due to misplacement of the NGT either in the lung, the trachea, or at best the mid-oesophagus.

### CORONIAL RECOMMENDATIONS

It would be preferable to have a service whereby a specialist toxicologist was readily available to give advice on treatment tailored to the clinical presentation and particular circumstances confronting the medical practitioner at the "coalface", rather than [the provision of] generic advice. Thus, an urgent, comprehensive, independent review [of the system of referral whereby the poisoned patient accesses the expertise] should be undertaken.

### KEY WORDS

poisoning, toxicology, ibuprofen, charcoal, paediatric, nasogastric tube, expert

## DID WE LISTEN TO THE ADVICE THAT WAS GIVEN?

**CASE NUMBER:** 4294/03

**Case Precis Author:** Amanda Charles RN, CLS

### CLINICAL SUMMARY

Ms P was a 16 year old female with a childhood medical history of asthma and chicken pox (varicella zoster virus or VZV) who was admitted to hospital for investigation of abdominal pain. Two weeks earlier she had been exposed to a relative with VZV. Ms P was reviewed by the surgical registrar overnight who noted that the initial radiological examinations were normal and suggested that a medical registrar review was required to assist with the diagnosis. The following morning, Ms P developed a vesicular rash, which prompted the family to report the recent contact with chicken pox to the hospital staff.

The medical registrar reviewed the deceased in the emergency department and recorded a differential diagnosis of gastritis, ulcers and chicken pox. Intravenous fluids and analgesia were ordered and she was admitted to a negative pressure room on the ward with the expectation she would be well enough to be discharged home within a day.

The next day Ms P had a fever, ongoing pain, and respiratory compromise with oxygen saturations measured at 89% and significant abnormalities in liver function tests.

The medical team saw her the following morning, three days after her initial presentation and made the differential diagnoses of VZV, pneumonitis, gallstones and hepatitis. Further diagnostic tests were requested and antibiotics and anti-viral medications prescribed. An Infectious Diseases (ID) Physician was consulted who concluded that the most likely diagnosis was fulminant hepatitis from presumed chicken pox, and recommended that the deceased would be better managed in a liver transplant unit.

Ms P rapidly deteriorated that day requiring a Medical Emergency Team

(MET) call and was intubated. The first dose of acyclovir was administered after the MET call and despite resuscitative efforts she died soon after. Ante-mortem hospital pathology specimens subsequently showed that the deceased was not immune to VZV.

### PATHOLOGY

The cause of death following an autopsy was disseminated varicella-zoster infection with associated staphylococcal septicaemia.

### INVESTIGATION

The Coronial investigation focused on the recognition and the management of the VZV infection. Statements were obtained from the clinical staff involved in the management of the deceased, the Department of Human Services and Therapeutic Guidelines Ltd regarding their guidelines for management.

The medical registrar stated that he had spoken to an ID registrar when he first reviewed the deceased but this was not documented. The ID Physician stated that she had been contacted by a doctor in the emergency department and had recommended oral acyclovir to minimise the symptoms in the deceased on the day of admission. This was not documented either.

A statement from the Director of Medical Services of the hospital agreed that acyclovir should have been administered earlier and attributed the failure to prescribe it to the junior status of the medical staff involved.

An expert opinion referred to recent literature describing the use of acyclovir in cases of severe abdominal pain in the setting of VZV infection. The expert was less critical of the failure to prescribe the medication due to the rarity of the condition.

### CORONER'S COMMENTS & FINDINGS

Management of the symptoms of VZV infection requires its serious consideration as a differential diagnosis. [The deceased] was known to have

previously suffered from the infection. Therefore, there was no reason to suppose she would be infected by further exposure. In the absence of characteristic lesions and elevated temperature, it is unlikely that any medical practitioner who saw her [on the day of admission] would have considered the possibility that her severe abdominal pain was associated with chicken pox.

However, after the lesions symptomatic of VZV infection appeared and staff were alerted to [the history of] exposure to chicken pox in the critical time period for contamination, it is difficult to understand why the differential diagnosis of VZV infection was not seriously considered by her treating team and why prophylactic measures to minimise the symptoms were not pursued.

The coroner accepted that earlier antiviral therapy was unlikely to have changed the outcome because, without liver transplant, most cases of fulminant hepatic failure secondary to VZV infection are fatal even with early initiation of antiviral therapy. Further, retrospectively, there was evidence that [the deceased's] immune system was compromised and this increased the risk that she would die.

### CORONIAL RECOMMENDATIONS

The coroner recommended that the Department of Human Services, the Royal Australian College of General Practitioners and the Society of Hospital Pharmacists of Australia encourage Therapeutic Guidelines Ltd to amend their Antibiotic Guidelines to:

1. Warn clinicians about the potential significance of severe abdominal pain in a patient with chicken pox.
2. Advise early administration of anti-viral medication in patients with severe symptoms consistent with chicken pox.

### KEY WORDS

anti-viral medication, chicken pox, documentation, abdominal pain, expert

*All cases that are discussed in the 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.*