Government of **Western Australia**
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From death we learn 2020

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Acknowledgements

The patients and their families
Ms Ros Fogliani, State Coroner, Western Australia
Mr Barry King, Deputy State Coroner, Western Australia
Ms Evelyn Vicker, Ms Sarah Linton and Mr Michael Jenkin and Mr Philip Urquhart, Coroners, Western Australia
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The Office of the State Coroner, Western Australia
The Office of the Chief Psychiatrist, Western Australia
The Health Service Provider Safety, Quality and Performance Units
All medical and nursing staff involved in the reporting and review of death

The Patient Safety Surveillance Unit (PSSU) welcomes suggestions on how this publication series may be improved. Please forward your comments to PSSU@health.wa.gov.au

From Death We Learn editions can be downloaded from the following website: http://ww2.health.wa.gov.au/Reports-and-publications/From-Death-We-Learn

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Background

Office of the State Coroner

The office of the Coroner is one of the oldest known to law, with the responsibility to investigate sudden or unexpected deaths continuing to this day. The current system reflects the original commitment to the deceased and the community but also extends to the deceased's family and friends. The *Coroners Act 1996* recognises the stress and trauma experienced by family and friends of a loved one who died suddenly or unexpectedly and requires the Coroner to ensure that a counselling service is offered by the court.

Under the *Coroners Act 1996* the Coroner seeks to determine the cause and manner of death and any contributing factors - a comprehensive fact-finding exercise, that as such, can be a lengthy process. The investigative process is held in accordance with the principles of open justice and is not aimed at apportioning blame.

An ancillary function of the Coroner, but a nonetheless important component of the investigative process is the identification of strategies to improve public health and/or safety; ultimately to prevent the reoccurrence of similar situations when possible. To this end the Coroner may make recommendations aimed at preventing deaths in similar circumstances.

It should be noted that by the time many cases reach inquest, appropriate measures have already been implemented by Health Service Providers to improve patient safety. This information is of significant assistance to the Coroner and, properly undertaken, demonstrates the on-going commitment of Health Service Providers to continually improve and adapt to better meet the needs of the public and provide safe, high-quality services.

Lessons from inquests

High quality organisations and systems routinely utilise both internal and external processes to review and improve their services, with coronial inquests being one important external mechanism from which to learn. This is the fifteenth edition of *From Death We Learn*, produced by the Coronial Liaison Unit at the Department of Health, which covers health-related coronial inquest findings from the 2020 calendar year as published on the Coroner's Court website as of 1 July 2021.

The cases are provided to assist in stimulating patient safety discussions across health disciplines. Organisations and individual healthcare providers are encouraged to consider these cases in the context of their service, with a quality improvement lens, seeking to identify opportunities for improvement, using a no-blame culture. Whilst each inquest summary only provides a glimpse of some of the issues, if readers are interested, the full inquest findings can be accessed on the website of the Coroner's Court of Western Australia.

As per previous years' editions, this edition includes key messages and discussion points, extracting what the Coronial Liaison Unit believes to be the significant health-related learnings from a coronial inquest. Also provided in this edition are suggested further reading and resources, to further enhance individual and organisational learnings.

Acknowledgements to the friends and families of loved ones whose deaths have been investigated by the Coroner. It is with the utmost respect to them that this publication is collated in the hope that it will complement the death prevention and public safety role of the Coroner, and ultimately improve the safety and quality of care delivered to patients.

Abbreviations

CIGH	Clozapine-induced gastro-intestinal hypomotility
CPR	cardiopulmonary resuscitation
CLU	Coronial Liaison Unit
CRC	Coronial Review Committee
DoC	Department of Communities
DoJ	Department of Justice
GP	General Practitioner
ICD	implantable cardioverter-defibrillator
MHCR	Mental Health Co-Response
MSAC	Medical Services Advisory Committee
ORP	Outpatient Reform Program
PARROT	Paediatric Acute Recognition and Response Observation Tool
PMO	Prison Medical Officer
PSOLIS	Psychiatric Services Online Information System
PSSU	Patient Safety Surveillance Unit
SPOCC	Statewide Protection of Children Coordination Unit
T1DM	Type 1 diabetes mellitus
VTE	Venous thromboembolism

Introduction to the Coronial Liaison Unit

The Coronial Liaison Unit (CLU) sits within the WA Department of Health and consists of the Chief Medical Officer, Patient Safety Surveillance Unit (PSSU) Manager as well as PSSU Senior Clinical Advisor(s) and Senior Policy Officer(s). The CLU was established in 2005 as a health initiative to improve communication between the WA health system and the Office of the State Coroner. Its main function is to facilitate quality improvement activity throughout the WA health system through the dissemination of health-related coronial inquest findings and recommendations to appropriate stakeholders for implementation.

The CLU, in conjunction with the Coronial Review Committee (CRC), reviews all public inquests that have a health care aspect to them and communicates the findings and recommendations via the Chief Medical Officer to the appropriate area within the WA health system.

The CRC operates in connection with the CLU by providing executive strategic support. The Committee was formed in January 2014 with its main purpose being to improve the governance and decision making in relation to statewide implementation and response to coronial inquest findings and recommendations. The CRC evaluates coronial inquest findings and recommendations and makes decisions about the level of response required. Members also review stakeholder responses to the CLU, to assess the progress or completeness of strategies implemented in response to coronial recommendations.

Expert advice and stakeholder responses on inquest findings, recommendations and actions taken to improve patient safety are fed back to the State Coroner in a biannual progress report.

The CLU continues to work with the Office of the State Coroner to share lessons learned from mortality review to improve future patient care.

Introduction to inquested cases

Under the *Coroners Act 1996* every regional magistrate is contemporaneously a Coroner. However, in practice the majority of Western Australian inquests in 2020 were conducted by the State Coroner Ms Rosalinda Fogliani, Deputy State Coroner Mr Barry King, and Coroners Ms Evelyn Vicker, Ms Sarah Linton, Mr Michael Jenkin and Mr Philip Urquhart.

There were 2,573 deaths reported to the Office of the State Coroner for full investigation in the 2019-20 financial year, an increase from 2018-19 (n=2,452)[1]. There were 2,637 deaths in 2019-20 that were dealt with by review of the treating doctor's death certificate recording a cause of death and were accepted by the Coroner. This was an increase from the previous year (n=2,231 in 2018-19). In 2019-20, 100 investigations were finalised by public inquest, with 87 of these being mandated in accordance with the *Coroners Act 1996*. This represents a significant increase in both the total number of inquests held (n=61 in 2018-19) and number of mandated inquests (n=31 in 2018-19). This increase is a result of the Long-Term Missing Persons Project undertaken by the Office of the State Coroner pursuant to section 23(1) of the *Coroners Act 1996* with 44 inquests held and finalised by 30 June 2020.

Public inquests are judicial proceedings conducted in open court. The Coroner is a judicial officer and receives evidence that is relevant to the inquiry. The objective of an inquest is to establish the facts surrounding the death of the person; the Coroner must not appear to determine any question of civil liability or to suggest any person is guilty of an offence.

After taking the evidence at an inquest, a Coroner must find, if possible:

- the identity of the deceased
- how the death occurred
- the cause of death and
- the particulars needed to register the death under the *Births, Deaths and Marriages Registration Act 1998 (WA)*.

The Coroner may also make comments and/or recommendations regarding any matter connected with the death, including public health or safety or the administration of justice. For example, comments may be made about the provision of health care or the actions of other public sector agencies. Where the death is of a person 'held in care' (which includes involuntary mental health patients, prisoners, children subject of a protection order under the *Children and Community Services Act 2004* and persons in the custody of police officers, amongst others), a Coroner is required to comment on the quality of the supervision, treatment and care of the person while in that care.

The Coronial Liaison Unit notes all coronial recommendations pertaining to health care and provides regular reports to the Office of the State Coroner outlining the responses to each recommendation from relevant stakeholders. These responses have been included in this report where the timeframe has allowed a response to be formulated prior to publication. In accordance with agreement from the members of the Coronial Review Committee to increase transparency and accountability, as of August 2019, the executive summary of the biannual 'Progress Report for Health-Related Coronial Recommendations' has been made available publicly online via the Coronial Liaison Unit website.

[1] Office of the State Coroner. Annual Report: 2019-2020 [internet]. 2020. Government of Western Australia. Accessible at https://www.coronerscourt.wa.gov.au/P/publications.aspx

Post-operative pulmonary embolism

Key Messages

- Safe discharge planning should commence on admission to hospital and have senior clinician oversight and involvement.

A 21-year-old woman died from pulmonary embolism following repair of a fractured ankle.

The deceased sustained a trimalleolar ankle fracture whilst dancing and was reviewed at her local hospital. She was transported to a tertiary hospital for orthopaedic intervention, but as her ankle was very swollen she was transferred on to a third hospital to wait for the swelling to go down. She was treated with enoxaparin for venous thromboembolism (VTE) prophylaxis during this time. Her risk factors included recently commencing the oral contraceptive pill.

Five days after the initial injury she underwent open reduction and external fixation at the tertiary hospital. The post-operative instructions provided at the time of operation did not include guidance on any further VTE prophylaxis as that decision would normally take place at the time of discharge. Two separate guidelines with differing protocols were in use at the time, however she was discharged home with no apparent VTE risk assessment or VTE prophylaxis.

This was not identified when she was seen in the outpatient clinic for removal of sutures and replacement of cast.

One month after the operation she developed chest pain, dyspnoea and palpitations, and was sent to her local emergency department by her General Practitioner. Unfortunately, she collapsed in the waiting room and could not be revived.

Inquest findings and comments

The cause of death was established to be pulmonary embolism and deep venous thrombosis in the injured leg, with the manner of death accidental.

Expert opinion was sought regarding the use of thromboprophylaxis following lower limb injury and surgery, and multiple guidelines were reviewed. No consensus opinion arose during the inquest regarding risk assessment or choice of anticoagulant, other than that VTE prophylaxis should have been provided for the period of immobilisation.

Coroner's recommendations

The Coroner made one recommendation:

- That the Department of Health place a high priority on ensuring that an appropriate system is implemented in all Western Australian hospitals to ensure as far as practicable that VTE risk is prevented.

WA health system action

The Australian Commission on Safety and Quality in Health Care have published the Venous Thromboembolism Prevention Clinical Care Standard (VTE Prevention CCS) to assist Health Service Providers in meeting the requirements of the National Safety and Quality Health Service Standards for accreditation. The goal of the VTE Prevention CCS is to reduce avoidable death or disability caused by hospital-acquired VTE through improved identification of patients who are at risk, assessment of VTE and bleeding risk, and appropriate use of VTE prevention methods.

The clinical care that patients should be offered in the prevention of hospital acquired VTE is reflected in seven quality statements. Quality Statements 1 (Assess and document VTE risk) and 7 (transition from hospital and ongoing care) of the VTE Prevention CCS were considered by the Coronial Review Committee as having particular relevance to the deceased's care. Health Service Providers have policies, compliance activities and supporting information for patients in place for the prevention of hospital-acquired VTE and following review have identified the implementation of the VTE CCS remains a work in progress.

References

- RUYZING inquest findings

Further reading and resources

- Australian Commission on Safety and Quality in Health Care - Venous Thromboembolism Prevention Clinical Care Standard
- Department of Health - High Risk Medication Policy

Discussion points

- VTE assessment and prophylaxis have been established within hospitals but are not always managed at discharge from both inpatient and outpatient settings. What barriers need to be overcome to improve management of VTE risk after discharge?
- How are clinical guidelines developed and maintained? How do you navigate differing or conflicting guidelines? How can you ensure best practice is adhered to in your area?
- How do you involve your patients in VTE risk assessment and discharge planning?

Paediatric Sepsis

Key Messages

- Sepsis continues to be a major cause of death world-wide.
- Early recognition and treatment may reduce mortality rates.
- Early recognition remains challenging in all age groups.
- Sepsis may be especially difficult to detect early in children and infants as they can deteriorate rapidly comparatively late in the course of illness.
- Repeat presentations to healthcare providers and parental concern should raise concerns about the possibility of serious illness.

A 7-month-old boy died from sepsis after multiple medical reviews.

One month prior to his death, the deceased had been seen in an emergency department with a possible pulled elbow, crying on passive movements of his arm following three days of diarrhoea and vomiting. His symptoms improved after repositioning of his arm for x-ray and he was discharged home.

A month later he was seen again in the emergency department with reduced movements of the same arm. He had a low-grade fever and was unsettled. The rest of his family all had upper respiratory tract infections at the time. Again, his symptoms improved after repositioning for an x-ray, and he was then seen to be bright and happy, moving the arm normally. The treating doctor considered the possibility of an infected joint but deemed this to be unlikely given the normal x-ray and the degree of recovery seen. He was discharged home with his family, and 'safety netting' information was provided as to when to seek further medical review, namely if his condition did not improve as expected or deteriorated in any way.

He remained unsettled and hot to the touch overnight and his parents called an ambulance in the morning. He was taken to another hospital and reviewed in the emergency department. The triage notes mentioned ongoing pain of his right arm with some swelling and ongoing fever. When reviewed by a junior doctor, his vital signs were unremarkable with no fever and he was settled and interactive during the review. The concurrent minor respiratory illnesses of other family members were noted. He had 'a snotty nose' and two flat red blanching spots noted on his thighs. His shoulder and clavicle appeared normal, but he was reluctant to move the rest of his arm. The doctor reviewed the x-rays and report from the previous day and asked a senior doctor to review the deceased. His elbow was manipulated and after a short while he started to use his arm freely. The senior doctor was concerned that the deceased did not look well, and another set of vital signs revealed a fever of 39 degrees. The senior doctor asked for the deceased to remain in the emergency department and not to be sent home with any abnormal vital signs. The fever settled rapidly, but the deceased's heart rate was then elevated at 185 bpm with a respiratory rate nearly 40 breaths per minute. The family were told that they should remain in the emergency department until the heart rate had settled, but they were keen to head home after a long night up with a sick child, and two lengthy visits to emergency departments in a 24-hour period. 'Safety netting' was again provided, with the parents asked to bring the deceased back for review if there was any change, persistent fever, vomiting, change in colour or in the rash, or any problems with moving his limbs again.

The next day the deceased was taken to stay with extended family in another suburb. He was still not his normal self, and so was taken by his grandparents to see a General Practitioner (GP). The

GP knew that the deceased had been reviewed at two different hospitals but did not have access to any notes or discharge summaries. The deceased was noted to have a mild fever, a red throat and some enlarged lymph nodes in his neck. No rash was noted other than some eczema, and the elbow appeared normal. Whilst the GP felt that the baby had a simple viral illness, he took into account the level of family concern and decided to arrange for investigations. He asked the family to take the deceased immediately to the local hospital pathology collection centre for blood tests including blood cultures, and took a nasopharyngeal swab, giving it to the family to take to the hospital with them. The GP advised that he would call as soon as the results were available. The deceased was taken home instead of to the hospital pathology collection centre for blood tests, as the grandparents planned to take him to the hospital the next day for review.

Around 3:00am he started to have vomiting and diarrhoea and was taken to a third hospital's emergency department. He was alert and had no fever at triage but looked unwell. Forty minutes after arrival, a junior doctor heard him crying and checked on him in the waiting room. By this stage he had developed a wide-spread non-blanching rash, heart rate of 188, respiratory rate of 65 and capillary refill time over 5 seconds. The emergency department registrar was called and the deceased was moved to the resuscitation bay for immediate treatment for septicaemia, presumed at that time to be meningococcal. The emergency department staff could not obtain intravenous or intraosseous access and so called the on-call paediatrician for assistance. Intramuscular antibiotics were eventually given whilst intraosseous access was obtained. A fluid bolus was administered with difficulty through the intraosseous line. The paediatrician advised the emergency department team to transfer the deceased to the tertiary children's hospital. Staff contacted the children's hospital emergency department registrar and the ambulance service to arrange this. As the deceased seemed to have improved with the fluid bolus, the paediatrician returned to the neonatal unit to attend another patient. Another registrar accompanied the deceased in the ambulance to the children's hospital. The deceased deteriorated en route and was taken to Intensive Care Unit on arrival, but sadly never recovered.

Inquest findings and comments

Blood cultures taken at the third emergency department had grown Streptococcus pyogenes. The source of infection was unable to be determined as only an external examination was allowed. The minor traumatic event of a dislocated elbow was found to be the inciting event for a probable deep tissue infection that progressed, finally developing into Streptococcal toxic shock syndrome. The cause of death was found to be fulminant sepsis, by way of natural causes.

The Coroner invited comment from expert witnesses from different backgrounds, including general practice, paediatrics, and clinical microbiology. Three different incident investigation reports were reviewed. Expert opinion varied regarding the provision of care and clinical acumen shown in the emergency departments and by the GP, and their collective failure to identify a deep soft tissue Streptococcal infection early enough to allow for successful treatment. The Coroner noted that streptococcal deep tissue infection and sepsis are extremely challenging to diagnose, and it was not surprising that competent experienced clinicians were unable to diagnose it.

Ultimately the Coroner found that "while there were aspects of the care provided that could have been improved, overall the care was understandable in the unusual and diagnostically difficult circumstances of his presentation". The Coroner found that all of the medical practitioners involved in this case acted reasonably.

The Coroner noted the ongoing poor availability of records between hospitals and was frustrated that this was still the case after making a recommendation in the 2015 Weiser inquest that: "If it is not already doing so, the Western Australian Department of Health, take steps to attempt to

identify and have in place a means of giving clinicians in emergency departments timely access to patients' health information from all sources."

Improvements around documentation, sepsis guideline compliance, communications and paediatric resourcing at the third hospital made since the death were noted, and no recommendations were made.

Coroner's recommendations

The Coroner noted several changes made since the death and made no recommendations.

WA health system action

The Coronial Review Committee members discussion included the role of escalation and sepsis education. Following a pilot and extensive stakeholder consultation, the Child and Adolescent Health Service have implemented a new paediatric early warning system. The ESCALATION System includes the Paediatric Acute Recognition and Response Observation Tool (PARROT chart) which has replaced the previously used Children's Early Warning Tool (CEWT chart). The PARROT chart includes a new sepsis recognition escalation pathway and is supported by a dedicated training package.

The Department of Health is currently implementing a standardised systemwide approach to recognising clinical deterioration and sepsis recognition escalation pathway, including use of the PARROT chart across the WA health system.

The WA Health Digital Strategy 2020-2030 states "that adoption of a system with Electronic Medical Record (EMR) functionality has become the global best-practice standard for delivering health services, demonstrating considerable benefits to health service safety and quality". The introduction of EMR functionality is proposed to provide benefits to both clinicians and consumers by bringing together a single, integrated view of a patients record that is available to treating clinicians regardless of which hospital in the WA health system they work in.

References

- PARAONE inquest findings

Further reading and resources

- Australian Commission on Safety and Quality in Health Care - Recognising and Responding to Acute Deterioration Standard
- Thompson, K., Sterkel, A., McBride, J., & Corliss, R. (2018). The Shock of Strep: Rapid Deaths Due to Group A Streptococcus. *Academic Forensic Pathology, 8*(1), 136-149. https://doi.org/10.23907/2018.010
- The Royal Children's Hospital Melbourne - Invasive group A streptococcal infections: management of household contacts
- NSW Health - Invasive Group A Streptococcus control guideline
- WEISER inquest findings
- Department of Health - WA Health Digital Strategy 2020-2030

Discussion points

- Fever is a very common symptom in children. How can you determine which child may be developing sepsis?
- What approaches to early recognition of sepsis have been used? Why does sepsis remain so difficult to detect early?
- Patients and their families may choose not to follow the suggested treatment plan as planned if it is not a good fit for their current circumstances. What factors may contribute to this? How can you ensure the delivery of safe and effective care if this occurs?
- The WA Health Digital Strategy includes the development of a systemwide electronic medical record. How is your service involved in this work? How can the sharing of clinical information be improved in the meantime?

Unexpected deterioration in country locations

Key Messages

- WA Health covers an area of over 2.5 million square kilometres. It is the largest area in the world covered by a single health authority, with substantial challenges in providing services in remote locations.
- Inter-hospital transfers may be subject to several logistical challenges and delays.
- Clinical deterioration in children can be rapid and unexpected.

Case 1

A 4-year-old girl died from transverse colon volvulus following transfer from a regional hospital.

The deceased was a child with Down syndrome and had suffered an episode of mid-gut volvulus had undergone emergency surgery, including a procedure to reduce the risk of future episodes at the age of 14 months.

One evening she developed abdominal pain and vomiting, with the pain causing her to bite her thumb until it bled. She was taken to the emergency department of a regional hospital and she was found to have a soft abdomen with no signs of intussusception. She continued to suffer intermittent waves of pain and was given intranasal fentanyl, and her pain settled by 6:00am.

She was then reviewed by the surgical registrar who was concerned about possible bowel obstruction as her abdomen was distended and she had a history of abdominal surgery. It was decided she would be admitted for observation, blood tests, X-ray, ultrasound and review by a consultant surgeon. The X-ray showed faecal loading and prominent small bowel loops but no signs of obstruction. The ultrasound showed active peristalsis, no intussusception and possible inflamed mesenteric lymph nodes.

Whilst investigations did not support the diagnosis of bowel obstruction, clinicians maintained a high degree of suspicion for this diagnosis and managed her accordingly. During the day she had repeated reviews by two surgeons and a paediatrician. The surgical team at a tertiary centre was consulted about her management and recommended conservative management at the regional hospital.

During the day she vomited water with streaks of blood in it, thought to be ingested blood. She opened her bowels, but her abdomen remained distended and mildly tender afterwards. Her pain returned around 3:00pm, with further vomiting, and the decision was made to transfer her to the tertiary centre.

A Priority 2 retrieval flight was allocated based on the information given, scheduled to pick her up at 7:30pm. A doctor would be on the flight, accompanying a different patient.

The deceased's vital signs remained stable until 6:50pm when her heart rate rose from 125 to 140. The paediatric team were in theatre at that time and she did not have any further medical review.

Ambulance officers arrived at 7:30pm to take her to the airport. She was noted to be pale and lethargic, with essentially normal vital signs, however by the time the ambulance arrived at the airport 20 minutes later, her condition had changed dramatically. She was cool and mottled, with abdominal distension and guarding. She was shocked with low blood pressure and a very fast heart rate. The doctor present asked for a fluid bolus and intravenous antibiotics to be given, but the pump attached to the line would not deliver the fluids, and this was agreed to be rectified during the flight. The decision was made to take the deceased to the tertiary centre as quickly as possible rather than back to the regional hospital as it was felt that she would need urgent surgery.

The plane took off round 8:35pm. Both patients deteriorated during the short flight, and the pilot arranged for another doctor to meet them at the airport on landing. Intraosseous access was obtained to allow administration of fluid bolus and antibiotics, after which she improved somewhat.

One doctor accompanied the deceased and her mother to the tertiary centre whilst another made phone calls to the Emergency Medicine consultant and the surgical registrar who were waiting for them. She was met on arrival by the emergency department consultant and two other doctors who attended to her in the resus bay. She arrested, and resuscitation attempts were unsuccessful with death occurring shortly after midnight.

Inquest findings and comments

The cause of death was found to be volvulus of the transverse colon, which is extremely rare and does not have the same appearance on X-ray as other types of volvulus.

The Coroner concluded that it was likely that her bowel was twisted at her initial presentation, resolved around 6:00am, then twisted again as she arrived at the airport, leading to rapid deterioration.

The Coroner found that:

- in hindsight the care provided at the regional hospital was not optimal as it lacked more frequent observations and ongoing medical review once the decision to transfer had been made but that the care the deceased received at the regional hospital and the arrangements for transfer was reasonable in the circumstances
- it was not surprising that clinicians there did not foresee that she would develop a retwisted bowel when she did.

The decision to take the deceased on to the tertiary centre instead of back to the regional hospital when she had deteriorated at the airport was a judgement call based on a belief that ongoing care needed to be at a tertiary centre instead of a regional one.

Coroner's recommendations

The Coroner noted several changes made since the death and made no recommendations.

WA health system action

The inquest considered the changes that have occurred since the death. There have been a number of changes to the transfer transport options from the regional hospital to metropolitan tertiary centres. These include road ambulance, Royal Flying Doctor Service air and road transfer and rotary wing helicopter service. Implementation of the WA Country Ambulance Strategy has recently resulted in the recruitment of more paid paramedics across nine regional locations. Transfers are further supported by the inter-hospital acute patient transfer coordination function in the WA Country Health Service Command Centre, a 24/7 virtual clinical hub which supports access to a range of clinical expertise via virtual technologies. This recently introduced coordination function will oversee safe, timely and efficient patient transfer to and from regional

and metropolitan hospitals for country patients. This is supported by an assessment and management of inter-hospital transfers policy and the regional hospital developed an inter-hospital transfer flowchart. The flowchart provides clinical guidance on establishing the ideal transport mode depending on urgency and type of continued care required for the patient.

Recognising and Responding to Acute Deterioration Policy is applicable to all Health Service Providers and Contracted Health Entities and requires services to develop local policies for the early recognition and response to acute physiological and mental state deterioration. Health Service Providers are also required to meet the National Safety and Quality Health Service Standards *Recognising and Responding to Acute Deterioration Standard* as part of ongoing accreditation requirements.

Case 2

A 22-year-old woman died in a remote hospital from complications of recurrent constipation.

The deceased had been born with congenital abnormalities including an imperforate anus and had undergone corrective surgery multiple times in infancy and childhood. Throughout her life she experienced recurrent severe constipation, and underwent an antegrade colonic enema procedure, whereby a small stoma was created in her large bowel to allow the insertion of fluid to flush it out from above.

In her late teens she presented to the local remote hospital several times for management of severe constipation. The inquest detailed five such occasions. Sometimes she was managed locally in the remote hospital with a combination of laxatives delivered via the stoma port and manual disimpaction, taking several days to recover each time. On two occasions she needed to be transferred to Perth for disimpaction under general anaesthetic.

Three days before her death the deceased presented once more to the local remote hospital seeking treatment for constipation. She did not tolerate manual disimpaction and was treated with laxatives and enema instead.

Two days later she had not improved and developed worsening abdominal pain and vomiting. The General Practitioner treating the deceased tried to request she be transferred to Perth for further treatment, but the registrar answering the call at the tertiary centre asked that she be kept in the country and to trial a strong oral laxative.

By the evening she had developed abdominal distension and tachycardia, and several phone calls were made to arrange her transfer to Perth by RFDS. A CT of her abdomen was obtained whilst waiting and it was suggestive of abdominal compartment syndrome, ischaemic bowel necrosis and megacolon. She continued to deteriorate and was too unwell for transfer when RFDS arrived at 2:00am the following morning, passing away a few hours later.

Inquest findings and comments

The Coroner found that the cause of death was bowel obstruction due to faecal impaction, by way of natural causes.

Expert opinion was sought regarding the provision of care. The deceased was known to be at high risk of not responding to simple laxatives, and would have benefited from early disimpaction under general anaesthetic, before she deteriorated to the point of needing urgent laparotomy.

The Coroner concluded that the young woman had died from a condition that was readily treatable had she been transferred to a tertiary hospital in time.

The Coroner noted a potential lack of appreciation of the complexity and potential severity of her rare condition by the registrars in Perth which combined with the deference shown by the country doctors to registrars at a tertiary hospital contributed to the delay in arranging for her transfer to a site where surgical assistance would be available.

The Coroner also noted the introduction of Call and Respond Early (CARE call) initiative at WA Country Health Service hospitals, providing family members with a way to escalate their concerns.

Coroner's recommendations

The Coroner did not make any recommendations in this matter.

WA Health system action

As noted by the Coroner, the Coronial Review Committee considered the improvements to the process of accepting transfers of patients into tertiary hospitals from rural hospitals, including the introduction of the WA Country Health Service Command Centre.

Case 3

A 10-week-old boy died in a remote hospital from dehydration complicating a diarrhoeal illness.

The deceased was born in a remote town. Whilst the deceased had no health problems, his mother had a history of mental illness including undergoing involuntary mental health admissions during the pregnancy. The Department of Communities (DoC) had worked with her and her family during her pregnancy, and the deceased was placed with foster carers from his extended family in his mother's very remote community soon after birth, a placement fully assessed by DoC as being appropriate and safe. His mother was able to visit him and continue to breast feed at times.

The very remote community had a community clinic, with registered nurses visiting four times a week for five hours each visit, and a doctor who visited three times a month. There was road and air access to a nearby town with a small hospital. The deceased underwent regular infant check-ups and was noted to be thriving and healthy. He received immunisations eight days prior to his death with no adverse reaction noted.

One day the deceased became unwell, noted by his foster parents to have a warm head, 'weary' eyes, and had diarrhoea. He was given paracetamol regularly, and formula every time he opened his bowels. He was unsettled and cried continuously overnight, and around 5:00am was noted to have cold hands. A call was made to the nearby remote hospital and his foster parents were advised to bring him to hospital, 160km away. The deceased's foster parents advised that they would not be able to get there in a timely manner, but there would be a doctor in the community at 8:00am who could review the infant.

By 7:30am he had deteriorated and was not breathing properly, and his foster parents called the hospital again. A nurse and orderly were despatched to drive towards the small community and the family were asked to drive to the remote hospital and meet the ambulance on the way. When the family was met midway at 8:25am the deceased had no signs of life, fixed and dilated pupils. CPR (cardiopulmonary resuscitation) had already been commenced by his foster parents and this was continued as he was taken to the resus bay in the hospital where staff were waiting with a paediatrician on video link from the regional hospital, but resuscitation attempts were unsuccessful.

Inquest findings and comments

Cause of death found to be dehydration from diarrhoea, manner of death was found to be from natural causes.

The Coroner noted the review of the case conducted by the Ombudsman and the recommendations made for DoC around compliance with practice requirements, documentation, and health care planning. The work undertaken by DoC following this death including improvements for support for people involved in out-of-home care placements was also highlighted.

The work undertaken by the Health Service Provider to review the education provided by remote area nurses to remote communities and to develop any required materials regarding hydration was noted, and that DoC were going to make such resources available to their caseworkers.

The community clinic in the very remote community has been upgraded to a remote area clinic with a residential nursing post. Nurses now live in the community, available 24/7 for emergency care outside of their normal five day a week service.

The Coroner was satisfied that the care, supervision and treatment provided to the deceased by the DoC was of an appropriate standard, and that he had received appropriate medical care. The Coroner was satisfied that the work undertaken by DoC and Health Service Provider mean that the risk of another infant dying in a similar situation has been greatly reduced.

Coroner's recommendations

The Coroner did not make any recommendations in this matter.

WA Health system action

The Coroner made a suggestion that the visual aids proposed by the inquest witnesses on the signs of dehydration be developed and used. A review has been commenced by the Health Service Provider of the existing resources for families considering suitability of content, presentation and accessibility.

References

- BEMBRIDGE inquest findings
- WINDIE inquest findings
- JM inquest findings

Further reading and resources

- WA Country Health Service Command Centre

Discussion points

- What factors need to be considered when making decisions to transfer patients between services?
- How do you manage the risks associated with transfer?
- How can healthcare services be provided more equitably across sparsely populated regions?

Paediatric neuroblastoma

Key Messages

- The ongoing availability of novel therapeutic agents may be precarious for many reasons.

A 2-year-old child died from complications relating to metastatic neuroblastoma.

The deceased had been diagnosed with Stage IV high risk neuroblastoma at 13 months of age and underwent intensive therapy at a paediatric hospital over the next 10 months, with chemotherapy, surgery, radiotherapy and immunotherapy. Ideally her treatment would have included an anti-GD2 antibody (Dinutuximab) but there was a world-wide shortage at the time and it was not available in Australia.

She went into remission, but the disease recurred a few months later. A substitute for Dinutuximab had been obtained by then, and so she underwent further chemotherapy and immunotherapy with the substitute, Dinutuximab Beta, but showed no response and was palliated, eventually dying with her family by her side.

Inquest findings and comments

The Coroner found that the cause of death was complications of metastatic neuroblastoma and the manner of death natural causes.

Neuroblastomas are the most common solid extracranial tumours in children. They account for between 5-7% of cancer in children, but 15% of childhood cancer deaths. The 5-year survival rate is 50%. Tumours which contain the N-myc gene, as the deceased had, are more aggressive and have a poorer prognosis. Treatment is intensive and includes multi-agent chemotherapy, radiotherapy, stem cell therapy and immunotherapy.

Dinutuximab is a monoclonal antibody that is considered standard of care for children with high risk neuroblastoma. It may improve short-term survival, but it has not been shown to improve long term cure rates. The paediatric hospital had been accessing Dinutuximab at no cost through clinical trials via an American biotechnology company that manufactures it, but due to demand it was not available outside of the United States of America for nearly a year. There is a risk that it will no longer be available at no cost in the future when the company moves from clinical research to commercial production. Dinutuximab Beta was purchased commercially from a European company, costing several millions of dollars. As an expensive novel treatment for use for several patients in addition to the deceased, approval for its use had to be obtained from the hospital's Executive as well as the Drug and Therapeutic Committee. This approval process took several months.

Expert opinion was that immunotherapy with Dinutuximab, whilst considered the standard of care for patients with neuroblastoma, would not have altered the ultimate disease course for the child.

Given the positive effects on short term survival reported, and uncertainties about ongoing supply, the Coroner expressed hope that the hospital and the Department of Health would lobby for Dinutuximab to be placed on the PBS as quickly as possible and would urge the Federal Minister for Health to give such a request favourable consideration.

Coroner's recommendations

The Coroner made a recommendation to ensure an ongoing supply of Dinutuximab:

1. I recommend that as a matter of urgency, the Perth Children's Hospital, supported by the Western Australian Department of Health, use every means at its disposal to lobby for Dinutuximab to be placed on the Pharmaceutical Benefits Scheme (PBS). I would also recommend that the Federal Minister for Health give favourable consideration to placing Dinutuximab on the PBS.

WA Health system action

A submission was made by the relevant Health Service Provider to the Medical Services Advisory Committee (MSAC) in July 2020. The MSAC was identified as the appropriate governance body as medications used in inpatient settings are funded jointly by the Commonwealth and the States through the National Health Reform Agreement rather than the Pharmaceutical Benefits Advisory Committee to be placed on the PBS. As of September 2021, the application remains open to consultation and there is no estimate of a close or review date as yet. The Health Service Provider advised the Coronial Review Committee of the clear escalation processes that are in place for the interruption of supply of a medication in seeking an alternative source.

References

- Child SJC inquest findings

Further reading and resources

- Western Australian Policy Advisory Committee on Technology (WAPACT) (WA health staff only)
- Western Australian Drug Evaluation Panel (WADEP)
- Medical Services Advisory Committee - Dinutuximab beta for high-risk neuroblastoma

Discussion points

- How are decisions about spending in health made? How are competing interests balanced in complex health systems?
- What are the governance processes that influence equitable access to evidence-based medications locally and across the health system?

Non-accidental injury

Key Messages

- Detection of non-accidental or inflicted injuries involves maintaining a high index of suspicion.
- Assessment of injuries in children should take into account the child's development and degree of mobility as well as the stated mechanism and pattern of injuries.

A 5-year-old girl died as a result of aspiration of vomit. She had been in the care of the Department of Communities (DoC) since the age of 2 ½ months, after she had sustained life-threatening head injuries leaving her with profound disabilities and needing high level care.

She had been reviewed by a Community Health Nurse and a General Practitioner (GP) when 5 weeks old. The nurse noted bruising to her face, but this was not commented on by the GP. Blood tests were obtained to investigate what the GP thought was infantile colic, revealing reactive thrombocytosis. Paediatric advice was sought, and the GP was advised to check the bloods a week later.

When the deceased was 6 weeks of age the Community Health Nurse noted more facial bruising, and was concerned about her mother's demeanour, so contacted DoC, who conducted a home visit the same day. The mother explained the bruising was due to the blood condition (thrombocytosis), and declined to take her to hospital for review, agreeing to visit the GP the next day instead.

DoC staff were not present at the GP review as there was no perceived obligation at the time for DoC to contact the GP. The GP wrote an open supportive letter for the deceased's family, refusing to believe they could be hurting the baby.

Repeat blood test results were available 3 days later, showing persisting thrombocytosis, and a new reduction in haemoglobin from 131 to 102. No further action was taken by the GP regarding these results.

The following day the deceased was taken to a regional hospital emergency department where she was reviewed by a nurse for concerns over poor feeding. A doctor was contacted by phone, who advised she be taken to a GP if there was no improvement by lunch time.

Later that day she was taken to another GP for review and was seen to be pale, bruised, with left eye deviation with abnormal jerking movements of the left side of her body. She was transferred to hospital for ongoing management of a skull fracture, intracranial bleeding, diffuse axonal injury and cerebral oedema.

Full review revealed multiple injuries of varying age consistent with repeated inflicted injury. The thrombocytosis and anaemia had been the result of injury and bleeding. She was taken into the care of the DoC and placed with experienced foster carers on her eventual discharge from hospital.

Police and DoC investigations led to the allegation of physical harm by the parents to be altered to that of a lack of supervision, as other people may have had unsupervised access to the deceased.

In the subsequent years the deceased's parents had ongoing contact with her, moving from supervised visits to unsupervised visits and eventually returning to full time care for one month before she sustained further facial bruising and was returned to foster carers. Further attempts at reunification were suspended as there was recurrent concern about unexplained injuries being sustained whilst in unsupervised contact with her parents, and possible underreporting of marks and bruises by foster carers.

She was found one day in bed by her foster carer unresponsive and not breathing, face down onto a pillow. Resuscitation attempts were unsuccessful.

Inquest findings and comments

The Coroner found that the cause of death was aspiration of vomit, with microscopic early pneumonia in a child with a history of cerebral palsy and epilepsy, by way of natural causes.

The inquest highlighted the risks of injury to non-ambulant children as serious injuries may be preceded by injuries of lesser seriousness that should be regarded as sentinel injuries in a non-ambulant child. The issue of mandatory reporting of neglect or injuries was discussed at length, including the risk of over-reporting and the need to resource such an initiative.

Coroner's recommendations

The Coroner made one recommendation:
I recommend that the Western Australian Government undertakes a regulatory impact review and if appropriate, introduces:

- an amendment to the *Children and Community Services Act* 2004 (WA) to include a duty to report any injuries in a non-ambulant child, in similar terms to the reporting structure for the reporting of sexual abuse of children requirements contained in Division 9A of Part 4 of the *Children and Community Services Act 2004* (WA); and
- an extension to the current mandatory training program jointly provided by the Department of Communities and the Department of Health – Child and Adolescent Health Services regarding the reporting of sexual abuse of children requirement contained in Division 9A of Part 4 of the *Children and Community Services Act 2004* (WA) to include education on the duty to report any injuries in a non-ambulant child.

WA Health system action

The recommendation directed to the Western Australian Government was considered by the Coronial Review Committee, and whilst the regulatory impact review was considered to be appropriate, it was determined the inquest findings could be reviewed to identify and suggest further areas of potential improvement as they relate to the WA Health system. Existing strategies were considered, and further areas of improvement identified.

The Statewide Protection of Children Coordination Unit (SPOCC) leads the development of policy and initiatives to support the protection of children, health needs of children in care and prevention of child abuse and neglect. SPOCC engages with the WA health system to support staff to meet their obligations to manage concerns of child abuse by providing training, guidelines and consultation. SPOCC publications include the *Guidelines for Protecting Children 2020* to assist staff to manage child abuse concerns.

In emergency departments Health Service Provider staff members utilise child injury proformas in screening injuries in all children. Supporting the use of proformas are frequent "safety net" meetings where all forms are reviewed by senior staff.

SPOCC is undertaking a review of all injury proformas currently in use across the WA health system with plans to standardise forms and associated governance processes across all sites.

Health Service Providers have requirements for Clinical staff in the completion of Mandatory Reporting of Child Sexual abuse training. This package is currently limited to Reporting of Child Sexual Abuse. SPOCC provides a number of additional training opportunities to support WA health system staff to manage child abuse concerns.

References

- PT inquest findings

Further reading and resources

- Guidelines for Protecting Children (WA health staff only)
- Statewide Protection of Children Coordination Unit (WA health staff only)
- Child Protection Unit

Discussion points

- What potential benefits and risks could arise from the Coroner's recommendation to consider amending the *Children and Community Services Act 2004* to include a duty to report any injuries in a non-ambulant child?
- What approaches can be used to identify children at risk, to support their families and protect the children?

Unrecognised clozapine complication

Key Messages

- Clozapine induced gastrointestinal hypomotility was previously an under-recognised medication side-effect.

A 35-year-old man died from acute vomit aspiration whilst an inpatient at a mental health facility.

The deceased had a long history of treatment resistant paranoid schizophrenia and was a long-term involuntary patient at the time of his death.

Clozapine was the most effective anti-psychotic for the deceased, however he developed agranulocytosis in the past and it had been ceased. It was recommenced 2 years prior to his death after special approval had been granted, and medication was administered to boost his white cell count. His mental state improved after clozapine was recommenced. Multiple other medications were administered to treat his hypertension and hypothyroidism, as well as to counteract other clozapine side effects such as hypersalivation and constipation.

Two days prior to his death, the deceased went on day leave with his father. When he returned, he appeared drowsy and could not speak coherently. He denied having used drugs whilst on leave. Clozapine was withheld due to his level of drowsiness.

The next day he displayed bizarre behaviour, leading clinicians to wonder if he'd used synthetic cannabis. He settled for a while, but in the evening was again unable to communicate and had tachycardia and a tremor. He did not report any abdominal pain. Medical review was requested, but the Duty Medical Officer was not immediately available and requested further observations be taken in the meantime. His tachycardia settled and his condition initially improved. A few hours later the deceased was found to have vomited copiously and been incontinent of faeces. He subsequently deteriorated and resuscitation was commenced. Paramedics attended, and suctioned large amounts of vomit from his airway. Resuscitation attempts were unsuccessful, and he was declared dead in the early hours of the next day.

Inquest findings and comments

The post-mortem revealed that the large bowel was filled with liquid and dilated along its entire length with no sign of necrosis or perforation. There was a band-like area of adhesion in the sigmoid colon. Extensive aspiration of vomit had occurred, and there was a large residual remaining in the stomach.

Toxicological testing revealed therapeutic levels of clozapine, and the presence of a synthetic cannabinoid which was thought not to be contributory.

The Coroner sought expert opinions on the matter, and there was disagreement between experts regarding the cause of the dilatation of the bowel, with expert surgical opinion being that the clinical presentation and post-mortem findings were not in keeping with acute large bowel obstruction, and that the diarrhoea and vomiting were agonal events rather than the result of any obstruction. The Coroner concluded that an incomplete mechanical obstruction caused by the band-like adhesion was present and that would explain the dilatation.

The possible contribution of clozapine to the death was reviewed by the Coroner. Clozapine's potential side-effects of agranulocytosis and myocarditis were well-recognised and monitored at the time of death, but the effects of clozapine on gastrointestinal motility other than simple constipation were not widely known at the time.

The Coroner concluded that the cause of death was acute vomit aspiration in a man with acute large intestine obstruction (severe megacolon) and clozapine-induced gastro-intestinal hypomotility (CIGH). The manner of death was found to be misadventure with a lawful intentional human act, the use of clozapine, unexpectedly contributing to the death.

The Coroner was satisfied with the care provided and reviewed several guidelines in connection with the prescribing of clozapine. At the time of this death, none of these contained any reference to CIGH, and some did not mention constipation.

Coroner's recommendations

Two recommendations were made:

1. I recommend that Department of Health amend its guidelines for the Safe and Quality Use of Clozapine Therapy in the Western Australian Health System to include reference to clozapine-induced gastrointestinal hypomotility as a serious side effect to the use of clozapine and recommend gastrointestinal monitoring in accordance with the draft "Guidelines for Managing Specific High Risk Medications Relevant to the Organisation".
2. I recommend that Pfizer Australia and Mylan Australia, in consultation with the Therapeutic Goods Administration, consider highlighting the risk of clozapine-induced gastrointestinal hypomotility in the boxed warning that appears at the beginning of their Product Information, and that if so altered, that it appears in the MIMS Full Prescribing Information and the Consumer Medicine Information.

WA health system action

Mandatory Policy 0131/20 *High Risk Medication Policy* and Supporting Information document G*uidelines for Managing Specific High Risk Medications Relevant to the Organisation* were published in February 2020 and Recommendation 1 is considered completed.

References

- KELL inquest findings

Further reading and resources

- Department of Health - High Risk Medication Policy
- Department of Health - Guidelines for Managing Specific High Risk Medications Relevant to the Organisation
- Therapeutic Goods Administration

Discussion points

- Medical knowledge is constantly changing. How is new information reviewed and made available to front-line staff?

Managing mental health patients in the emergency department setting

Key Messages

- Patients with mental health problems often present in crisis to emergency departments as their point of entry to the mental health system including inpatient care.
- Observation of these patients whilst awaiting transition to more appropriate places of care is a key part of patient safety.

A 74-year-old woman with a long history of mental health issues who died as a result of injuries sustained when she completed suicide by stepping out in front of a moving train.

The deceased had a long history of mental health issues including borderline personality disorder, depression and anxiety. She had several previous hospitalisations following suicide attempts. Several of her suicide attempts had been by overdosing on her insulin. She lived alone, however had a large supportive family who were consulted about her care. She had previously worked in a factory, as a shop assistant and as a cleaner. She had multiple medical issues including, type II diabetes requiring insulin complicated by painful peripheral neuropathy, dyslipidaemia and hypertension. There was concerns about frontal lobe impairment impacting on her decision-making capacity, judgement and impulse control.

The deceased had a prolonged 6-month admission earlier in the year to an Older Adult Mental Health Service due to concerns that she was no longer safe to live alone at home. She tried to leave at least once without permission during this admission. Her family were looking for suitable nursing home placement near them and she was transferred to a transitional care facility in the interim. The deceased was unhappy at the transitional care facility and whilst there, attempted suicide by dropping her mechanical bed on her head. The deceased was taken to the emergency department by ambulance for further medical review.

At the emergency department she was noted to have bruising and abrasions on her head, and that her primary health concerns were for her mental health. She was assessed as remaining actively suicidal and indicated she did not wish to either return to the transitional care facility or the older adult mental health ward. She told hospital staff that she felt that suicide was the only way to resolve her current dissatisfaction with accommodation options. She wanted to go home but this was not an option. She was placed under the *Mental Health Act 2014* to allow transportation to a mental health facility for further psychiatric assessment. The treating psychiatric doctor placed the deceased on forms and informed a member of nursing staff. There was an assumption that once the deceased was placed “on forms”, 1:1 nursing specialling would be commenced but this did not occur in a timely manner. Another emergency department nurse was unaware the deceased was an involuntary patient and thinking she was to be discharged, allowed her to leave the emergency department unaccompanied.

Once it was realised the deceased had gone missing, staff searched the hospital grounds and there was a delay of several hours before the police were contacted. The deceased made her way by taxi and train to a train station where she walked into the path of an oncoming train. The deceased suffered fatal injuries and died at the scene.

Inquest findings and comments

The cause of death was by multiple injuries. The manner of death was by suicide. There was clear evidence that the deceased had been wanting to end her life for a long time. When she was informed she was being admitted to hospital, she instead chose to escape hospital and end her life.

The Coroner raised concerns about a number of issues:

1. The clinical incident investigation conducted by the Health Service Provider did not involve interviews with all staff involved. Several key staff members were not interviewed as part of the clinical incident investigation. As a result, not all the facts pertaining to how the deceased left hospital were provided.
2. The scope of the specialling policy. There was an expectation by mental health staff that once emergency staff were informed that a patient was placed on forms, a nurse special would be allocated. However, this was not the specialling policy in the hospital at the time which only pertained to nursing. The clinical investigation indicated there needed to be a broadening to the scope of the specialling policy to help other clinicians understand the process better.
3. Poor communication between the mental health and nursing teams. The clinical investigation found that communication difficulties were a factor in the delay in notifying the police about the absence of the deceased and to the inadequate level of supervision of the deceased in the emergency department. There have been a number of subsequent changes made by the Health Service Provider to address this issue.

Coroner's recommendations

The Coroner was satisfied that other than the very brief lapse of supervision at a critical time, the overall care provided to the deceased was of an appropriate standard. After taking into account the subsequent changes put in place by the Heath Service Provider addressing their concerns, no further recommendations were made.

WA health system action

The Health Service Provider provided an update addressing the concerns raised by the Coroner and detailed the subsequent changes that have been implemented. The Coronial Review Committee observed that equivalent risk outlined in this case would exist in other Health Service Provider emergency departments and agreed that each of the other Health Service Providers should review their own relevant emergency department services in light of the concerns raised by the Coroner.

The Health Service Provider has updated the scope of the Specialling Policy which is now multidisciplinary. When a patient is placed "on forms" under the *Mental Health Act 2014*, this now triggers an automatic "special" by a mental health nurse (where available) or a discussion with the treating psychiatric team regarding a suitable alternative (Registered nurse or Assistant in nursing) based on risk and the care and observations that are required.

The Emergency Department Mental Health Policy has been revised to clearly outline the roles and responsibilities of staff in contacting the Police in the event a patient goes missing, following the delay in reporting the deceased absence to police.

The Health Service Provider advised that once a patient is identified as being of concern or at risk, or is placed "on forms" the use of immediate hold/review flags in the Emergency Department Information System for psychiatric patients stating "Review before Discharge". This then requires review by the psychiatric team before the patient can leave the department in response to the lack of supervision enabling the deceased to leave unobserved. Alternative risk mitigation

processes used by other Health Service Providers include adjusting staff-patient allocations or ratios, physically locating patients at risk of going missing in high visibility areas and/or moving patients to secure observation wards.

References

- REILLY inquest findings

Discussion points

- How can ongoing safety of patients with mental health problems in emergency departments be improved?

Police responses to mental health presentations

Key Messages

- Police and security personnel may be first responders to incidents involving people with behavioural disturbances or mental health problems.
- Single agency responses tend to be less effective than those that involve mental health personnel as well.
- Mental health patients may have several risk factors which increase the risks associated with restraint.

A 49-year-old male with a long history of Bipolar Affective Disorder who died as a result of a self-inflicted injury to his neck which occurred whilst police were attempting to restrain him.

At the time of his death, the deceased was living with his parents and had previously worked as a senior manager at an electronics company as well as an electronics technician. He had previously been managed by an outpatient community mental health service until his discharge from the service earlier in the year. His mental health deteriorated several months later, and he stopped taking his regular medications. In the week leading up to his death, he started to display increasingly erratic and aggressive behaviour. This led to several contacts with emergency departments and mental health services. His parents expressed concerns about his mental health and behaviour to clinicians and police on several occasions. However, at each review the treating clinicians found insufficient grounds for involuntary admission.

Several days prior to his death he drove off from his parents' house for the final time and during a phone call with the mental health service his parents were advised to contact the police. He attended the emergency department the next morning for review of his leg pain where he was noted to be in a manic state, but that there were insufficient concerns for him to be detained. He was found by police later that day where he reassured them that he had been to hospital that morning and had been released. The police did not feel he needed to be taken back to hospital based on their interaction with him. Over the next few days, the deceased had a number of contacts with friends and family showing concerning behaviours. He spoke to his mother in a threatening manner and spoke of his intent to kill himself. He then presented at his friend's house in a stolen vehicle behaving bizarrely and in a threatening manner. He asked his friend for ammunition and the keys to his dirt bike. He then briefly appeared at his ex-wife's house the same day seeking ammunition and was apparently in possession of a shotgun. As a result, family and friends contacted the police, advising them of their concerns regarding his behaviour, his intent to kill himself, and their belief that he had a loaded shotgun.

On the day of his death, the police searched and located the deceased in the vicinity of a caravan park. The attending police who located him were unaware of his relevant mental health issues. When police approached him, the deceased fled into bushland. During a subsequent struggle to restrain him, he stabbed himself in the neck with a knife. The police used a Taser to subdue him, then commenced first aid and called an ambulance. He continued to resist attempts to provide first aid, yelling at officers to let him die. Following the arrival of paramedics, he went into cardiac arrest and unfortunately resuscitation attempts proved unsuccessful.

Inquest findings and comments

The cause of death was a self-inflicted incised injury to his neck and his death was ruled a suicide. The Coroner was satisfied with the police actions leading up to and at the time of his death. It was

noted that the Police were trying to arrest him for a stolen vehicle and that he would possibly be in possession of a loaded shotgun and were unaware of his mental health issues and suicidal intentions.

The Coroner highlighted that improvements have subsequently been made to address this issue, namely with the implementation of the Mental Health Co-Response Team. Though it may not have materially changed the actions of police attending to the deceased, it may have meant the responding police were provided with more detailed information to alert to the risk of suicidality and unpredictable behaviour. The Coroner commented that the implementation of the Mental Health Co-Response Team may assist in potentially avoiding deaths in similar circumstances in the future.

Coroner's recommendations

The Coroner made 3 recommendations aimed at supporting and expanding the Mental Health Co-Response:

1. That the Mental Health Co-Response continue to be funded, and that consideration be given to providing the Western Australia Police Force and the Western Australia Mental Health Commission with additional, external funding in order to support expansion of the programme in a way that meets demand.
2. That consideration be given to providing the Western Australia Police Force and the Western Australia Mental Health Commission with additional, external funding in order to support the expansion of the Mental Health Co-Response in metropolitan areas of Perth.
3. That work continue on the planning of the Mental Health Co-Response in regional areas of the State, and consideration be given to providing the Western Australia Police Force and the Western Australia Mental Health Commission with additional, external funding in order to support the expansion of the Mental Health Co-Response into regional areas.

WA Health system action

The Mental Health Co-Response (MHCR) involves police and mental health practitioners working together and co-responding to calls to the Western Australia Police Force for assistance with mental health related incidents. It involves having a Mental Health Practitioner present in the Police Operations Centre, and mobile teams of police and mental health practitioners who have access to Psychiatric Services Online Information System (PSOLIS) records and an on-call psychiatrist for advice. The mental health information of current and past public mental health patients is able to be accessed through the PSOLIS records to assist in assessing not only the patient's risk to self but also risks to police and the community. Independent evaluation of the 2016 MHCR trial demonstrated benefits in resource allocation, safety and wellbeing of staff and consumers, and integrated interagency collaboration.

In conjunction with the Mental Health Commission and WA Police, work has been undertaken by the WA Country Health Service to develop an appropriate model of service for regional areas.

The Mental Health Commission addressed each of the recommendations in their response to the Recommendations, including the proposed approach to metropolitan and regional expansion as posted on the Office of State Coroner's website[2].

References

- KEY inquest findings

[2] https://www.coronerscourt.wa.gov.au/_files/inquest-2020/recommendation%20key.pdf

Further reading and resources

- WA Police Force Mental Health Co-Response Evaluation Report
- Lee, S., Thomas, P., Doulis, C., Bowles, D., Henderson, K., & Keppich-Arnold, S. (2015). Outcomes achieved by police and clinician perspectives on a joint police officer and mental health clinician mobile response unit. *International Journal of Mental Health Nursing 24*(6) 538-546. https://doi.org/10.1111/inm.12153

Discussion points

- How can the risks associated with the restraint of people with behavioural disturbance be reduced?
- How can different agencies improve communication and information-sharing to improve patient outcomes? What barriers or challenges exist?
- How can mental health services work with police to better respond to mental health presentations?

Excited Delirium

Key Messages

- Individual agencies involved in patient care may use different terminology which can increase the risk of miscommunication and ambiguity.

Suspecting him of being involved in the sale and supply of drugs and money laundering, police officers arrested a 27-year-old man around 5:00pm and then searched his car and the house where he lived.

He appeared anxious to the police but no more so than other people in similar situations. He denied having taken any drugs or alcohol. He was noted to be nervous, fidgety and sweating. He requested his usual anti-anxiety medication, but it could not be found. He appeared increasingly anxious and agitated as incriminating items were found in the house and stated he was having an anxiety attack.

An ambulance was requested shortly after 7:00pm. This was triaged as a Priority 3, and a crew allocated approximately 30 minutes later, however they were then stood down to attend a high priority call. His anxiety continued to increase, and he became more agitated, sweating profusely. The police officers then suspected he had 'excited delirium', possibly from drug use. A Priority 1 ambulance was requested and advised that he'd deteriorated and was showing signs of 'excited delirium', believing the term would be significant to ambulance staff. The ambulance priority was upgraded from 3 to 2.

A third call was made around 20 minutes later advising that he was now manic, unpredictable and borderline violent. At 8:00pm he collapsed with vomiting and trismus and was not breathing with no detectable pulse. CPR (cardiopulmonary resuscitation) was commenced the ambulance service contacted once more to inform them that CPR had been commenced. An ambulance (Priority 1) arrived 5 minutes later. Resuscitation efforts en route and at hospital were unsuccessful.

Inquest findings and comments

The cause of death was found to be methamphetamine toxicity and the manner of death misadventure. The Coroner concluded that he had ingested a toxic dose just prior to being apprehended by police officers, presumably to avoid being charged with its possession.

The Coroner was satisfied with the supervision, treatment and care provided by police officers, and that the ambulance staff acted in an exemplary manner. A gap between the different agencies understanding of each other's emergency communication protocols was revealed in this incident, which likely affected the priority allocation at the time of the second call.

The ambulance service has taken steps to improve communication with the Police and to ensure staff understand the term 'excited delirium', and the two agencies have met to discuss ways to work collaboratively.

Coroner's recommendations

One recommendation was made

- That the Western Australian Police Force and St John Ambulance implement a liaison process with respect to the training each agency provides to their officers about medical emergency terminology and protocols

The Coroner also suggested that any future emergency training provided to police officers also incorporates an explanation of the ambulance service emergency priority allocation protocols, so that police officers are aware of how to communicate appropriate information to the ambulance service communications officers relevant to the level of an emergency.

WA health system action

Correspondence was sent to the ambulance service who confirmed that it is their preference that police officers describe what they are seeing/hearing from the patient in front of them rather than provide a clinical label, in case that clinical label is not correct. The ambulance service confirmed that work is underway in both agencies in updating their training and guideline materials and discussions are underway in sharing training information between agencies.

References

- CONGDON inquest findings

Discussion points

- What are some barriers to clear communication?
- What tools can be used to improve the effectiveness of communication?

“I can’t breathe”

Key Messages

- Vocalisation is produced by moving air in the ‘dead space’ of the upper respiratory tract and does not guarantee that oxygenation and ventilation is occurring.
- The use of prone restraint should be avoided. Safe restraint requires education and training.

A 26-year-old prisoner died in a Correctional Centre in New South Wales (NSW) after being subjected to physical restraint in a prone position after refusing to relinquish some biscuits. He had been in prison for more than six years at the time of his death. Similarities of the death of the NSW prisoner were noted to a 2011 Western Australian Coronial inquest into a death of an involuntary mental health patient.

The deceased had developed Type 1 diabetes mellitus (T1DM) in childhood and this was poorly controlled. It was suspected he had already developed complications such as peripheral neuropathy. His dietary control was not optimal, and at the time he refused to use insulin or have his blood sugar level measured. He experienced multiple episodes of low blood sugar, at times associated with seizures requiring transfer to hospital. In the month leading up to his death, his blood sugar levels were unusually high rather than low. A referral for outpatient diabetes review was sent a few weeks before his death but had not been completed.

The deceased also had a chronic psychotic illness that had been poorly controlled with oral medication. A month before his death, the deceased was moved to the Mental Health Unit of the Prison as he was floridly psychotic and deemed to be at risk of violence with concerns raised for the safety of staff attempting to manage his diabetes. He was then managed on depot zuclopenthixol, oral aripiprazole and chlorpromazine as needed, and had a normal ECG recorded.

On the day of his death his blood sugar had been high. Only limited amounts of insulin were authorised by the doctor, who was waiting for advice from an endocrinology team. Concerned about the deceased’s blood sugar, the nurse advised him to watch what he ate that day. This was overheard by some of the prison officers, and when the deceased obtained some biscuits from his personal store, the guards were concerned that allowing him to eat them would be potentially life-threatening. They tried unsuccessfully to persuade him to relinquish the biscuits. As he became more agitated and aggressive in response, the officers decided that he should be moved to a cell with a closed-circuit camera, so he could be observed to see if he came to any harm from eating his biscuits. A team of six prison officers was summoned to aid in moving the deceased, and in restraining him so the nurse could administer intramuscular midazolam to sedate him. The deceased was held in prone restraint with weight placed upon his back, despite calling out repeatedly “I can’t breathe”. Less than 2 minutes after the injection, he became unresponsive. After what was later described by the Coroner as inadequate and interrupted resuscitation attempts by prison staff, paramedics were unable to revive him.

Inquest findings and comments

The cause of death was cardiac arrhythmia. In relation to the manner of death, the Coroner found the deceased died whilst being restrained in the prone position by Corrective Services officers. His longstanding poorly controlled T1DM, prescription of antipsychotic medication with a propensity to prolong the QT interval, elevated body mass index, likely hypoxaemia caused by prone restraint, and extreme stress and agitation as a result of the use of force and restraint were

all contributory factors to the death. The administration of midazolam was not contributory to the death.

One expert witness stated that “If restraint was removed from the equation, but regard was still had to his obesity, psychosis, and agitation, it is likely that (the deceased) would not have suffered a cardiac arrest”.

The Coroner concluded that it was neither necessary nor appropriate to use a large team of officers to facilitate the deceased’s cell transfer. Alternatives including de-escalation or removing the biscuits not the man were not considered.

Coroner’s recommendations

The NSW Coroner made 20 recommendations, including some around the risks of prone restraint and positional asphyxia.

NSW non-government organisation, Justice Action wrote to the WA Director General of Health and government agencies in other states and territories to ask that these findings and recommendations be reviewed.

The NSW Coroner noted the separate role of the coronial and criminal jurisdictions.

Prison officers were issued certificates pursuant to section 61(5) of the Act preventing evidence being used against them in any prospective criminal proceedings, without which the Coroner deemed it is likely that they would not have given their evidence willingly.

WA health system action

The Coronial Review Committee (CRC) observed the NSW inquest raised similar issues to a previous WA inquest of an involuntary mental patient in which the deceased was being physically restrained, face down with his head, arms and legs being held at the time of his death. Following the CRCs discussion of the NSW death, Health Service Providers reviewed actions from the previous WA inquest for current arrangements regarding restraint including prone restraint monitoring, reporting and staff training (clinical and non-clinical) for all areas (including mental health) where restraint is applied. Health Service Providers advised that appropriate policies, procedures and arrangements are in place to monitor, report and train staff regarding the use of restraint in reinforcing that physical restraint is seen as a strategy of last resort and that care is provided in the least restrictive manner.

Health Service Providers indicated that when prone restraint is required that a variety of strategies are utilised to ensure close monitoring of patients. This includes during an episode of restraint monitoring the maximum time length of restraint, assigning a team member to monitor time, completion of a risk assessment when prolonged restraint is required and documented criteria and roles of clinicians in ensuring physical observations (airway, breathing and circulation) and wellbeing are monitored with requirements for patients to also be reviewed following restraint episodes.

All Health Service Providers have confirmed the requirements for mandatory training amongst staff with programs incorporating best practice models, trauma-informed care principles, de-escalation techniques and restraint minimisation through both theoretical and scenario-based training. Health Service Providers offer workplace aggression and violence training for all staff with additional mandatory training required for staff involved in restraint or seclusion and/or staff in areas of high risk including mental health and security with requirements for ongoing competency and refresher training.

For episodes of restraint occurring in mental health services, public and private mental health services are required to comply with the Chief Psychiatrist's statutory standard regarding reporting episodes of restraint. Health Service Providers are also accredited against *Comprehensive Care Standard, Action 5.35 Minimising restrictive practices: restraint*. Strategies implemented in non-mental health areas include monitoring and recording the frequency and duration of restraint use, documentation in the patients medical record, utilisation of dashboards, clinical incident management review, and reporting to executive, governance committees and/or working groups. Health Service Providers indicated that strategies are being considered further in the systematic and central recording and reporting of restraint in non-mental health settings.

References

- DUNGAY inquest findings

Further reading and resources

- Chief Psychiatrist - Reporting Episodes of Seclusion & Restraint
- Australian Commission on Safety and Quality in Health Care - Comprehensive Care Standard, Minimising restrictive practices: restraint

Discussion points

- How can de-escalation techniques be promoted?
- What are the risks and benefits of de-escalation or restraint to staff and patient?
- The Royal Commission into Aboriginal Deaths in Custody was released in 1991, with over 300 recommendations. What impact has it had?

Chronic Disease Management in Prison

Key Messages

- Prison health services may not have access to a prisoner's complete health record.
- Interactions with other health service providers may provide more clinical information to allow better targeted care.
- Prisoners have limited agency in accessing health care.

Case 1

A 52-year-old man died in hospital whilst a sentenced prisoner in custody.

The deceased had diabetes, peripheral vascular disease with a previous femoral artery bypass, and ischaemic heart disease with dilated cardiomyopathy, low ejection fraction and intermittent ventricular tachycardia. Whilst living interstate his cardiologist had recommended he undergo coronary angiography and have an implantable cardioverter-defibrillator (ICD) inserted, but the deceased had refused this potentially life-saving intervention.

He was extradited to Western Australia to face criminal charges and was sentenced to prison.

On admission to prison in Western Australia his full medical record was not immediately available, and not fully reviewed when it was. There was a delay in ensuring the deceased was provided with the correct medications. He did not always take his medications as prescribed and refused blood tests and treatment at times.

The deceased did not disclose that he had a cardiac condition and so he was not referred for cardiology review until over a year later when he was admitted to hospital with pneumonia and heart failure. Regular cardiology reviews were provided from that point onwards. Collateral history was sought from his cardiologist in New South Wales. Again, the deceased declined to have angiography or an ICD, and was thought to be aware of the risk of sudden death without these interventions.

Later he suddenly became unwell and was admitted to hospital in cardiogenic shock. Investigation showed severe triple vessel disease, widespread cardiac ischaemia and limited viability of cardiac muscle. The deceased was reluctant to consider surgery and doctors discussed his condition with him and family members with the aid of an interpreter. Unfortunately, he suffered a cardiac arrest, emergency angiography was carried out, but stenting was deemed to be futile given the limited myocardial viability. He succumbed shortly afterwards.

Inquest findings and comments

The cause of death was found to be ischaemic heart disease; the manner of death natural causes.

Expert opinion was that the delay in referral to a cardiologist was unlikely to have affected the progress of his illness as he had been stable on medical management and was likely to have declined interventions.

The Coroner considered a review by the Department of Justice (DoJ) of the deceased's health care whilst he was in custody. Several areas for improvement had been identified.

1. The need for specialist cardiac care was not identified on admission or during subsequent medical reviews.

2. The deceased's community medical history was not available at admission. When the voluminous records arrived, they were not perused in full due to time pressures.
3. The deceased was not started on cholesterol lowering medication until four months after admission.
4. The deceased was not added to the terminally ill prisoner list, despite satisfying the criteria at admission. Being on this list would have meant the deceased would have been reviewed periodically by the Director of Medical Services and may have been referred to a cardiologist earlier. It is not certain that this would have changed management as the deceased declined angiography and ICD when it was offered later.

Improvements made in Prison Health Services since the death were noted:

1. The medical admission template has been updated, with specific questions about medical specialists.
2. A new release of information form includes specific questions for medical specialists.
3. Prison Health Services now have access to MyHealthRecord.
4. Education has been provided to prison medical officers (PMOs) on cardiac failure and when to refer to specialist care.

The number of PMOs in WA was reviewed briefly by the Coroner. There is no agreed standard as to the appropriate ratio of PMOs to prisoners, however the higher rate of chronic disease, alcohol and drug use, and mental health problems amongst prisoners compared to the general population was noted. The increase in the number of people imprisoned in recent years was also noted by the Coroner. Remuneration for PMOs is comparatively poor, and the work is not seen as attractive for medical officers, so remains difficult to recruit to.

At the time of this death the workforce establishment for PMOs in WA was 21.5 full-time equivalent (FTE), with occupancy at only 18.2 FTE. At the time of this inquest the establishment was 25.9 FTE, with 16.2 FTE employed.

The Coroner could not say that the shortfall of PMOs led directly to the death, but described the current system as unacceptable, and strongly urged the DoJ to make every effort to urgently recruit more PMOs. The Coroner was satisfied that the standard of care provided was adequate but urged the DoJ to urgently recruit more PMOs.

Coroner's recommendations

The Coroner did not make any recommendations in this matter.

WA Health system action

During discussion Coronial Review Committee members noted the problem of recruiting and retaining PMOs. Currently, WA is the only jurisdiction in Australia where custodial health services are the responsibility of, and delivered by, the department responsible for corrective services. A collaborative project was established by the DoJ, the Department of Health and the Mental Health Commission to examine and assess the responsibilities for provision of health services within the justice system. The recommendations from the project are being considered by Government.

Case 2

A 67-year-old woman died in hospital whilst in the custody of the CEO of the then Department of Corrective Services.

Her medical conditions included alcohol-induced cirrhotic liver disease, ischaemic heart disease and osteoarthritis. The deceased attended the prison medical centre frequently for management of knee pain, diabetes, and rectal bleeding.

A referral to the hepatology clinic for review of her liver condition and 'low blood count' had been sent, however the notice of an appointment sent by mail was not received by prison staff.

When the deceased did not attend the hepatology clinic appointment, she was discharged from the clinic. A letter informing her of the need for a new referral was never sent, and the prison medical staff took no further action despite the apparent lack of response to the referral.

Another referral was made to a gastroenterology clinic for investigation of rectal bleeding with a colonoscopy booked for a few months later.

During the intervening months the deceased was admitted to a different hospital for repair of fractured neck of femur sustained after a fall. She developed hepatic encephalopathy, and a diagnosis of hepatocellular carcinoma was made during the admission. She remained agitated throughout her admission and was deemed not well enough to undergo treatment for the cancer or a colonoscopy. She was referred for palliative care two weeks after admission and deteriorated and died in hospital.

Inquest findings and comments

The Coroner found the manner of death to be the combined effects of bronchopneumonia and acute liver failure on a background of liver cirrhosis and hepatocellular carcinoma in a woman with atherosclerotic cardiovascular disease and recent fractured neck of femur treated palliatively. Death occurred by natural causes.

The Coroner was satisfied that her care in custody overall was adequate. The delay to diagnosis of hepatocellular carcinoma was not thought to have contributed to her death.

Coroner's recommendations

One recommendation made for the Department of Justice around generating automatic reminders of external referrals for appointments.

- In order to ensure that referrals of prisoners to external agencies, made by prison clinical staff, are appropriately actioned, the Department should consider using its health records system (EcHO) to generate automatic reminders to clinical staff. These reminders would prompt clinical staff to check whether an appointment had been received from the external agency for the prisoner and/or whether the appointment had been attended by the relevant prisoner.

WA health system action

The Coronial Review Committee considered missed outpatient follow-up appointments and how to manage them, noting there are multifactorial reasons for why appointments are missed, and in the case of this inquest the patient had no control over her inability to attend. Outpatient referrals are accepted via the Central Referral System, and patients are then allocated to the most appropriate Health Service Provider. Following a missed initial appointment, Health Service Provider processes for Did Not Attend (DNA), specifically relating to a missed initial appointment

may include a clinician reviewing the patient's need for the appointment, and if the need for the appointment remains, a letter is sent to the patient informing them of the need and the placing the patient back on the waitlist. Notifications of appointment changes or DNAs are currently printed and posted by the hospital to the prison.

An Outpatient Reform Program (ORP) is being led by the System Clinical Support and Innovation Directorate, Department of Health. A key objective of the ORP Program is to build upon the success of the Central Referral System to improve timely access to outpatient services provided at public hospitals. One of the ORP projects currently underway is aiming to procure and implement a new solution to streamline and digitise the external referral process – with one of the intended outcomes being to enhance communications between Health Service Providers, patients and referrers to ensure all parties remain informed of key information relating to a patient's referral (e.g. the status of a referral).

References

- BECHARA inquest findings
- KELLY inquest findings

Further reading and resources

- Australian Institute of Health and Welfare – Overview of health of prisoners
- Office of the Inspector of Custodial Services – Custodial Environment
- Department of Health - Central Referral Service

Discussion points

- What factors might lead to a patient missing their outpatient appointment?
- How does your site respond when patients do not attend booked appointments?
- What challenges are faced by clinicians making referrals to outpatient clinics? How can these be addressed?
- What risks to patients exist as a result of administrative delays or lack of follow up?

This document can be made available in alternative formats on request for a person with disability.