MAGISTRATES COURT *of* TASMANIA

CORONIAL DIVISION

Record of Investigation into Death (Without Inquest)

Coroners Act 1995
Coroners Rules 2006
Rule 11

I, Robert Webster, Coroner, having investigated the death of Karl Heinz Vieth

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

a) The identity of the deceased is Karl Heinz Vieth (Mr Vieth);

b) Mr Vieth died as a result of complications which arose subsequent to a fall;

c) Mr Vieth's cause of death was a periprosthetic fracture of the left hip after he fell from a standing position; and

d) Mr Vieth died on 6 May 2023 at Hobart, Tasmania.

In making the above findings I have had regard to the evidence gained in the investigation into Mr Vieth's death. The evidence includes:

- The Police Report of Death for the Coroner;
- Tasmanian Health Service (THS) Death Report to Coroner;
- Affidavits as to identity;
- Report of the forensic pathologist Dr Donald Ritchey;
- Medical records obtained from Eastern Shore Doctors;
- Medical records obtained from the THS;
- THS final root cause analysis report;
- Affidavit of Helene Vieth; and
- Report of the forensic medicine coronial nurse Mr Kevin Egan.

Background

Mr Vieth was 92 years of age (date of birth 27 March 1931), married and he was a retired electrical contractor at the date of his death. Mr Vieth was married to Helene and they both lived in Dusseldorf, Germany until 1963. They first met at a dance in 1952 and during the evening danced and sang together but parted ways at the end of the night without knowing

each other's name. They were then formally introduced to one another by friends in 1953 when they went to a dance class after which Mrs Vieth says they were inseparable.

When they first met, Mr Vieth worked as an electrician. He commenced his apprenticeship in about 1946 and completed the training in about 1949. Mrs Vieth qualified as a diet assistant in 1956 and it was during that year that they married.

In 1958, their eldest daughter, Sabine, was born. The next year their son Christian was born however he passed away approximately three months later due to an undiagnosed congenital heart defect. In 1960 the couple's daughter, Barbra, was born. After Mr Vieth's parents passed away in 1962 and 1963, Mr and Mrs Vieth immigrated to Australia and on arrival they relocated to Wayatinah in Tasmania where Mr Vieth worked as an electrician. They subsequently purchased a block of land in Tranmere and built a house which they moved into in early 1967. Two years prior to that their fourth child Stephan was born. At the time they moved into the family home, Mr Vieth commenced working as an electrician at Cadbury. In about 1970, Mr Vieth commenced his own business as an electrician and in 1975 they welcomed their youngest child; Justin. Mr Vieth continued working until the middle of 2000, when he retired at the age of 69. In the interim they had moved to High Street, Bellerive, then they demolished the old house on that land and built a new house before moving again to Clarence Street, Bellerive.

In so far as Mr Vieth's health was concerned, he was very healthy and had no major illness until 1991 when he had a heart attack. He experienced a second heart attack in 2002 and thereafter he underwent triple bypass surgery. Subsequently he had bilateral hip replacements and glaucoma. Mrs Vieth says her husband was ill for the majority of the last two years of his life. She says he was constantly in and out of hospital. He suffered from chest pains and he also had problems with his knees and hips due to his long hours working as an electrician. In early 2023, he received treatment for skin cancer. He celebrated his birthday on 27 March 2023 with his family at their home in Clarence Street however between that date and late April 2023, Mr Vieth was in and out of hospital with heart problems. On 25 April 2023, Mr Vieth experienced chest pains again and as a result Mrs Vieth telephoned for an ambulance which transported Mr Vieth to the Royal Hobart Hospital (RHH).

Mr Vieth's medical records disclose his past medical history consisted of the following: aortic stenosis, left ventricular hypertrophy, ischaemic heart disease with coronary artery bypass graft (CABG) surgery, permanent pacemaker for bradycardia, atrial fibrillation, anaemia, hypertension, congestive cardiac failure, glaucoma, macular degeneration, bilateral total hip replacements (approximately 2000), osteoarthritis, gastric reflux disease and spinal stenosis.

Circumstances Leading to Death

In summary, Mr Vieth was admitted to the RHH after experiencing chest pains on a history of significant cardiac and other multiple medical comorbidities. He was admitted to the Emergency Medical Unit (EMU) from the Emergency Department (ED) under a general medical team awaiting definitive placement in a medical ward. Unfortunately, he stayed in the EMU for five days, developed delirium and confusion, had a "near miss" fall and then had an unwitnessed fall on day four of his admission which resulted in a fracture of a previous hip replacement. His condition continued to deteriorate, and he was moved to comfort care and died in the palliative care unit.

A chronology in relation to Mr Vieth's clinical course while in hospital is as follows:

- 25 April 2023 – Arrived in ED via ambulance with chest pain and shortness of breath. Admitted to EMU. Referred to and admitted by general medical team. Bed requested for inpatient medical ward;
- 26 April 2023 – Social work review and family discussion regarding placement. Multiple episodes of nursing staff finding Mr Vieth out of bed, fluctuating confusion, walking unaided, non-compliant at times and impulsive;
- 27 April 2023 – On multiple occasions, Mr Vieth mobilised to the bathroom overnight (no ensuite bathroom in EMU). He had difficulty sleeping. Melatonin charted but no stock available at night;
- 28 April 2023 – Mr Vieth had difficulty sleeping, nurse requesting alternate medication to assist sleep and awaiting medical review. Nurse gave prescribed promethazine to assist sleep at 0030 hrs;
- 28 April 2023 – Unwitnessed fall. Mr Vieth was found outside his room in EMU. He was assessed in place and then returned to bed. Medical review by hospital at night team. Xray identified periprosthetic fracture. Waiting orthopaedic review. Unable to transfer to room closer to central station as not available due to 'servicing'. Safe Reporting and Learning System (SRLS) report done. All post falls care provided;
- 29 April 2023 – PSA (sitter) requested post fall. Mr Vieth exhibited increasing confusion and impulsiveness. He had been in the EMU for 96 hours. He was moved to an inpatient ward at 1848 hours and subsequently underwent an orthopaedic review. It was determined Mr Vieth needed anaesthetics review & pain management. He had a spiked temperature to 38 degrees Celsius;
- 4 May 2023 – There was a discussion with Mr Vieth's family regarding his goals of care, which was changed to C (palliative). He was moved to the Whittle ward (palliative care unit) at 1700hrs;

- 5 May 2023 – Mr Vieth tested positive to COVID-19. He was then moved to palliation and comfort care;
- 6 May 2023 – Mr Vieth died in the palliative care unit. The initial incident report was listed as a Severity Assessment Code 4 (SAC4) – which was upgraded to a SAC 1 and a formal clinical incident review was undertaken. By way of explanation all incidents reported on the Safety, Reporting and Learning System (SRLS) require review or investigation, with the severity of the incident determining the level of investigation. The SRLS generates a Severity Assessment Code (SAC) from one to four based on each incident's level of harm, level of care and treatment required, with SAC 1 being the most severe and SAC 4 the least severe. The Department of Health's Policy on Safety Event Management specifies the following requirements for the investigation of incidents reported on SRLS:
    - All SAC1 events are investigated using a Root Cause Analysis methodology. This is a standardised system-based approach used to investigate serious safety events for analysis and identification of system-based causes;
    - All serious safety events (SAC 1 and/or SAC 2 ratings) are formally investigated, analysed and managed, with actions taken as appropriate, recommendations made and the event finalised within 70 days from the date the event was reported in SRLS; and
    - All SAC3 and SAC4 events are investigated, analysed and managed with actions taken as appropriate and closed within 36 calendar days of the event being reported in SRLS.

Investigation

The very experienced forensic pathologist Dr Donald Ritchey carried out a post-mortem examination on 8 May 2023. He noted Mr Vieth was admitted to hospital with acute coronary syndrome on a background of advanced disease of the heart and blood vessels. While in hospital, Mr Vieth fell and fractured his left femur adjacent to surgical hardware from a previous repair. Mr Vieth deteriorated, and he was provided with palliative care. Dr Ritchey says Mr Vieth died as a result of falling from a standing position and suffering a periprosthetic fracture of his left hip after which his general condition deteriorated and he passed away. Because of the fall, Dr Ritchey determined Mr Vieth's death was not a natural death. I accept Dr Ritchey's opinion.

The THS Death report to the Coroner certifies the admission diagnosis was atrial fibrillation with a rapid ventricular rate. The fall on the ward on 28 April 2023 resulting in a left

periprosthetic hip fracture was noted. The report says this injury *"directly lead to deterioration and subsequent death."* It noted a family meeting that took place on 2 May 2023 and where it was decided there would be nonoperative management of Mr Vieth's injury and that he was referred to palliative care on 3 May 2023 and then transferred to the Whittle Ward for end-of-life care on 4 May 2023.

Mr Vieth's medical records indicate he suffered an acute myocardial infarction in 1990 and he required a coronary artery bypass graft in 2004. He underwent a right total hip replacement in 2005. He was up to date with both his flu and COVID-19 vaccinations.

Mr Vieth's hospital records, in more recent times, indicate he received treatment for chest pain and/or heart related symptoms. On 8 September 2015, he received treatment for chest pain whereas between 4 and 5 December 2018, he received treatment from the cardiology department. Then on 27 August 2020, he received treatment for congestive cardiac failure and between 15 and 18 January 2022, he received inpatient hospital treatment for atrial fibrillation. Between 1 and 2 October 2022, he received treatment for a post syncopal episode which resulted in a fall on 30 September 2022 and finally between 5 and 12 April 2023, he received treatment for wound cellulitis post revision of a lesion which had taken place in a private hospital 1 to 2 weeks prior to this admission.

The forensic medicine coronial nurse Mr Egan considered the root cause analysis (RCA). That document identifies there were *"missed opportunities"* to reduce Mr Vieth's falls risk which included the failure to use a bed and chair sensor alarm (BCSA) and the failure to use a patient safety assistant (PSA – 'sitter'). Mr Egan does not consider these are the root causes of the fall and resultant death.

Mr Egan notes falls prevention in a hospital is multifactorial and while the two factors, which have been identified, may have contributed to the fall, he says a review of the records and the RCA investigation and report demonstrates the root cause of Mr Vieth's fall was the *"failure to provide a more appropriate admission destination, in a timely manner, under the supervision of specialised medical, nursing and allied health teams, and the failure to prioritise an appropriate inpatient location for a vulnerable patient that required definitive care and management and close visual connection to staff."*

Mr Egan says there appears to be no clear prioritisation or decision-making tools, guidelines or processes for emergency department admissions and how patients, especially elderly (and other high-risk patients) are allocated or prioritised to the high-demand inpatient beds at the hospital. He recommends the RHH and other THS facilities investigate the use of programmes such as the Queensland Health, Clinical Excellence Queensland, Geriatric Emergency Department Intervention (GEDI) to help coordinate a facility wide approach to

elderly care in the emergency department. He says the aim of this programme is *"cost effectively maximising the quality of care for older people who present to the Emergency Department (ED). GEDI is provided by a nurse-led, physician championed team who provide frontload assessment, communication, care coordination and appropriate discharge planning."*[1] In essence, an established process of early identification of the frail and elderly from aged care and community settings, to highlight priority of care, appropriate management and placement, to track and support patients through the ED, provide a source of communication and coordination between the ED, inpatient teams, aged care facilities and general practitioners, and facilitate appropriate admission and discharge processes.

Mr Egan goes on to say the priority of patient flow and access should encompass the concepts of "the right patient, in the right location, with the right staff and right equipment." Admission of a patient to 'a bed' (or any available bed) is counterproductive when it is not appropriate for the patient and his or her circumstances. High risk patients should be able to be easily identified and prioritised in the hospital system and clear triaging of priority incorporated into the access and patient flow guidelines.

Mr Egan believes it may be viable for the THS and RHH to investigate the use of, in conjunction to the GEDI model of care for example, other internationally validated programmes that address, particularly for the elderly, patient harm, falls, delirium and functional decline such as "End PJ Paralysis"[2] or "Eat, Walk Engage"[3] or 'Move it or Lose it"[4] as a means to having an organisational and consistent approach to elderly care coordination throughout the THS to help address these issues.

In this case Mr Vieth was initially admitted to the EMU with a view to possible discharge by the emergency team. The admission to the EMU was an appropriate location until further assessment could be undertaken. I note Mr Vieth was still under the overall care of the emergency physicians. When it was later determined that discharge home was not possible and inpatient management was required, Mr Vieth was referred to the appropriate medical unit team and a request for an appropriate medical unit inpatient bed was made. Unfortunately, and due to a variety of reasons and obstacles identified in the RCA including access block, bed demand, hospital capacity and facility escalation level, Mr Vieth was not moved to an appropriate inpatient unit and stayed instead, in the EMU. This unit is generally designed for short stays; that is less than 24 hours emergency type patients and as such, it is

[1] Geriatric Emergency Department Intervention (GEDI) | Improvement Exchange | Clinical Excellence Queensland | Queensland Health
[2] #EndPJparalysis - End PJ Paralysis
[3] Eat Walk Engage | Improvement Exchange | Clinical Excellence Queensland | Queensland Health
[4] Stand Up for the NHS - Move it or Lose it

not an appropriate location for multinight-stay, complex, confused, wandering patients. The EMU is staffed by emergency nurses, and the medical coordination is provided by the inpatient medical teams which are located in the inpatient ward area and not in the ED or EMU. Patients such as Mr Vieth are therefore not under the direct observation of the treating medical teams and do not necessarily have timely access to allied health, speciality nursing services, equipment or appropriate environmental and facilities services that he would have in the inpatient unit.

Mr Egan says it is well documented in hospital and healthcare research that ('outlier') patients - that is patients who are not admitted to the specific specialised inpatient unit where they are under constant supervision of the specialist medical, nursing and allied health teams and are instead located in another inpatient or general area - have longer length stays in hospital and have more emergency calls. The RCA indicates that outliers have greater in-hospital mortality. However, there is no evidence in the literature that they have greater mortality or morbidity once discharged from hospital. Outliers, therefore, rather than addressing access block and improving patient flow, contribute to the worsening of access block and patient flow through longer stays, worse inpatient mortality and the exposure of patients to environments not suited to their needs. This is a failure of the organisation, not the individual, and staff cannot be held accountable for organisational failures, a lack of resources or a failure to implement facility-wide processes that could improve outcomes.

The RCA report identifies that:

- bed allocation practices are not consistently applied by patient flow managers,
- transparency of decision making was lacking, and
- there were no reference or decision guidelines (or guiding principles) regarding complex bed management allocation and the prioritisation and allocation of patients to the limited inpatient bed resources.

As evidenced in the RCA report, there have been hospital and departmental reviews into patient flow and access to inpatient units, that the risks to the organisation are highly rated in the organisations "Risk Register" and that the 'risk' is regularly monitored, and various strategies are in place to control the risk. This demonstrates that problems with access to appropriate inpatient specialist care and management and access block have been sustained over a significant timeframe without adequate resolution or the apparent identification and implementation of management strategies. Continuing to list an issue on the 'Risk Register' of the THS or RHH does not mitigate that risk and the RCA report concedes further work needs to be done to advance patient flow and access.

Mr Egan disagrees with the RCA that a physiotherapist and occupational therapist review was not required. Mr Vieth had a very well documented history of syncope, hypotension, bradycardia, was anaemic, used a walking aid, was a nonagenarian and had been admitted for angina. He'd had vasodilators administered for chest pain during his attendance in the EMU and these too would contribute to hypotension and falls especially in a patient who is impulsive, confused, and non-compliant as Mr Vieth was. Additionally, Mr Vieth had a "near miss" fall on day two of his admission to the EMU where he was witnessed to mobilise without his walking aid and nor did he call for help; the result being he fell forward while standing. It was only that two staff were in immediate proximity and where able to *'catch him and support him back to bed'* that he did not fall. Any patient assessed as high falls risk, confused, wandering, and who also had a near miss fall should have had a mobility, strength and falls assessment and a review of equipment and aids used as a matter of priority. This may have been more efficiently organised if he was in the specific inpatient medical unit under the eye of the treating medical and nursing teams.

Mr Egan agrees with the RCA that all nursing and medical assessments were undertaken upon admission to the EMU and in no way is he critical of the care provided by the nursing or medical teams. The EMU, however, was not the appropriate location for Mr Vieth and the THS failed in prioritising his allocation to an appropriate inpatient area in an appropriate timeframe.

There are no timeframes listed for action or review or audit for the two identified root causes in the RCA. These should have a definitive timeframe for completion and identification of how the changes have been implemented and how they will be audited.

Mr Egan suggests there is evidence which does not support the use of bed and chair sensors and patient care assistants. The evidence suggests that sensors are associated with increased falls in the acute hospital setting and systematic reviews do not support the claim that personal care assistants reduce falls. In fact, there is scant evidence that adding a one-on-one personal assistant for behavioural monitoring to the usual care reduces falls.[5] Falls management in the acute hospital setting requires the incorporation of multifactorial and multidisciplinary factors which include:

- baseline mobility assessments;
- continence plans and management;
- management of delirium and cognitive impairment;

[5] See the references on page 10.

- appropriate footwear and feet assessments, (non-slip socks are not recommended and there is no evidence they prevent slips or falls);
- management of syncope, dizziness, and vertigo;
- medication reviews and pain management;
- vision assessments and appropriate lighting in clinical areas;
- access to natural lighting;
- environmental review with hazard reduction and appropriate placement of patients requiring mobility aids to mobilise safely;
- safe and appropriate equipment;
- use of mobility alarms;
- regular visual checks (including where assessed appropriately, individual care assistants);
- regular staff rounding;
- visual access and line of sight bed allocation;
- use of hip protectors;
- vitamin D review and nutritional supplementation;
- osteoporosis management;
- pain management and
- restrictive practices when assessed and appropriately approved.

Mr Egan suggests identifying just two of these falls prevention strategies as the root cause of the fall and death without the identification or access to all the preventive processes available is counterintuitive to the RCA process. The RCA does say the panel was unable to determine *'with any certainty the degree to which strategies were implemented'*. It is strange then, that these two factors alone were identified as the root cause by the RCA team, perhaps inappropriately.

The THS EMU notes indicate bed rails were in use for Mr Vieth. Although it does not appear to have been a direct contributor to the fall, as he was found in the hallway, the use of bed rails is not recommended for mobile and confused patients. This is documented in the Hospitals South Preventing Falls and Harm From Falls Guideline. It is also referenced in numerous published national aged care and department of health guidelines. Again, this adds to the argument that patients need to be in appropriate and dedicated specialist inpatient locations where the appropriate equipment, knowledge and oversight are available.

Mr Egan agrees with the RCA wherein it did not determine *'with any certainty'* that the fall was *'preventable'***.** However, he says not 'everything' was done within the organisation's responsibilities to ensure all reasonable preventative measure were put in place. Mr Egan

says the failure to appropriately accommodate Mr Vieth in a suitable inpatient unit location was the likely root cause and was the single most important contributor to the fall and Mr Vieth's death. Staff did the best they could to provide safe and contemporaneous care within the restrictions that the facility imposed on them and he is in no way critical of the staff who provided direct care and management to Mr Vieth.

Mr Egan has no concerns with the post fall care and management and Mr Vieth's treatment while an inpatient was considered and appropriate. The care provided by individual staff was generally at a level expected from a tertiary referral facility.

I agree with Mr Egan's opinions.

Comments and Recommendations

I make the following comments:

- A suitable bed in EMU that provided more visibility for staff was not available due to service or repair. This is a facilities management issue. When admitted to EMU initially, all beds in the high visibility room were occupied. Staff in the EMU identified the need that Mr Vieth required frequent visual observation but were hampered by the lack of an appropriate space in the EMU. This should have been known to the patient flow unit and should have been a 'red flag' for prioritising the placement of Mr Vieth in an appropriate inpatient unit.
- There is evidence of increasing confusion, delirium, and impulsiveness exhibited by Mr Vieth during the admission to EMU and before the fall. An admission of five days to the short-stay emergency unit is not appropriate. I cannot however see in the documentation provided any evidence of the escalation of Mr Vieth's transfer out of EMU. It is noted the RCA indicates that patients of priority, long stay and of concern are discussed at the morning patient flow bed meeting. There is no evidence in the report or record of how patients are prioritised and how they are escalated. Clearly, there is still a significant amount of work to be done in this area.
- In a 2021 published article in Medicine (2021) 100:41, Systematic review and meta-analysis of clinical trials; it noted in hospital use of sensors for prevention of falls, resulted in *"an increase of 19% in falls among elderly patients who are users of sensors located in their bed, bed-chair, or chair among their hospitalisations."*
- In the Annal of Internal Medicine Vol 172 No 5. 3 March 2020, A systematic review of *"Sitters as a Patient Safety Strategy to reduce Hospital Falls"* it is concluded that *"…despite a compelling rationale, evidence is scant that adding sitters to usual care reduces falls."*

- The RCA states *"a range of the key strategies to prevent delirium were implemented to at least some degree."* It is also acknowledged that a falls prevention quality improvement activity was underway in the ED. There are no specifics provided with respect to this including its implementation or the type of process being engaged. It may be useful to know what has been done and what has been implemented in this regard.
- The prevention of delirium is important in falls prevention and functional decline. According to the RCA the EMU is underground and does not have access to windows or natural light. For confused or elderly patients, this key environmental factor may be a significant contribution to worsening confusion and a subsequent fall. Not being able to discern light from night, unfamiliar environments, not being able to visibly access bathrooms for continence and urgency, different staff numbers and experience, and frequent changeover of patients in the EMU all contribute to the development of delirium in the elderly. Again, prolonged admission to this environment likely contributed, in this case, to the development of confusion, impulsiveness, and the fall.
- Initial assessment by the senior nurse in emergency indicated a high falls risk, but at the time there was no identifiable confusion or delirium. The delirium appeared to evolve post admission.
- The RCA identified several good examples of practice and care, and I do not believe that the care provide was sub-standard or not at a level appropriate to the acute hospital environment. Post-falls management was very good, as was the inclusion of the family and the subsequent pathway of treatment. Management of family expectations and good communication was evident in the records.

A copy of my draft reasons in this matter was provided to the THS for comment. The response received on 13 August 2024 indicated *"there was no more to add that would be of help."* In particular information with respect to the falls prevention quality improvement activity, mentioned in the first dot point on this page, was not provided.

The circumstances of Mr Vieth's death are not such as to require me to make any further comments or recommendations pursuant to Section 28 of the *Coroners Act* 1995.

I convey my sincere condolences to the family and loved ones of Mr Vieth.

Dated: 11 October 2024 at Hobart, in the State of Tasmania.

Magistrate Robert Webster
Coroner