IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2023 005175

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

*Section 67 of the **Coroners Act 2008***

Findings of:	Coroner Ingrid Giles
Deceased:	Guy Christian Mason
Date of birth:	27 July 1975
Date of death:	17 September 2023
Cause of death:	1(a) Pulmonary thromboembolism <u>Contributing factor(s)</u> 2 Recent motorbike collision (rider), WHO Class II obesity, patellar tendon repair surgery
Place of death:	Victorian Heart Hospital 631 Blackburn Road Clayton Victoria 3168
Keywords:	Venous thromboembolism, VTE, VTE prophylaxis, Safer Care Victoria guidelines, orthopaedic surgery

INTRODUCTION

1. On 17 September 2023, Guy Christian Mason[1] was 48 years old when he died at the Victorian Heart Hospital (**VHH**) in Clayton, Victoria. At the time of his death, Guy lived at Dingley Village with his wife, Trudi Kersey-Mason (**Ms Kersey-Mason**), and their children.

2. Guy was born to parents Leslie and Lisleen Mason and was the younger brother to Timothy and Robin Mason. Guy and Ms Kersey-Mason met when they were in high school and they formed a relationship in the mid-1990s. They welcomed their first child in November 2000 and welcomed a further ten children together.

3. Outside work and family life, Guy was passionate about volunteering, ghost hunting, hiking, graphic design and riding his motorcycle.

4. Guy purchased his first motorcycle in 2021, and he rode it every day. He was described as a careful and risk-adverse rider, and he cared for his motorcycle as his 'pride and joy'.

THE CORONIAL INVESTIGATION

5. Guy's death was reported to the coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* (**the Act**). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.

6. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

7. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

8. Victoria Police assigned an officer to be the Coronial Investigator for the investigation of Guy's death. The Coronial Investigator conducted inquiries on my behalf, including taking

[1] Referred to throughout this finding as 'Guy' unless more formality is required.

statements from witnesses – such as family, the forensic pathologist, treating clinicians and investigating officers – and submitted a coronial brief of evidence.

9. This finding draws on the totality of the coronial investigation into the death of Guy Christian Mason including evidence contained in the coronial brief. Whilst I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[2]

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Circumstances in which the death occurred

10. At about 4.00pm on 15 August 2023, Guy was riding his white 2015 Yamaha MT07 motorcycle (**'the motorcycle'**) south on Westall Road, intending to turn right onto Rowan Road. At the same time, a fellow motorist was waiting on Rowan Road to turn right onto Westall Road, driving his silver 2018 Nissan X-Trail wagon (**'the Nissan'**).

11. The driver of the Nissan commenced turning onto Westall Road, without seeing Guy on his motorcycle. As the Nissan started turning right, he collided with Guy's motorcycle, causing Guy to be ejected from the motorcycle.

12. The driver of the Nissan and other motorists all stopped to call Triple Zero and rendered assistance. Police and paramedics attended the scene quickly.

13. Paramedics documented that Guy did not have a full recollection of the events, however other motorists explained that Guy did not appear to lose consciousness and were able to explain what happened. Guy reported pain to his right knee and paramedics observed deformity to the right patella and no other obvious injuries. Paramedics administered pain relief and transported Guy to Dandenong Hospital.

14. Imaging performed at Dandenong Hospital indicated a suspected patella tendon rupture. Guy was admitted under the general surgical team, and he was reviewed by the orthopaedics team on 16 August 2023. The clinical plan was for Guy to be non-weight bearing and to wear a knee splint for one week, with an outpatient MRI scan. Guy received a 40mg dose of

[2] Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

enoxaparin at 4.00pm that day. Guy was discharged from Dandenong Hospital at about 12.30pm on 17 August 2023.

15. On 21 August 2023, Guy's outpatient MRI was scheduled for 13 November 2023. The outpatient MRI was rescheduled for 17 October 2023, after Guy requested it be brought forward. Guy was able to have it brought forward to 25 August 2023.

16. Guy underwent an outpatient MRI on 25 August 2023 which reported findings of a "*Ruptured patellar tendon. Ruptured anterior cruciate ligament. Large radial tear in the posterior horn of lateral meniscus. Moderate oblique tear in the body of medial meniscus. Mildly depressed impaction fractures at weightbearing aspect of lateral femoral condyle, posterior aspect of lateral tibial condyle and posterior aspect of medial tibial condyle.*"

17. On 6 September 2023, Guy attended the orthopaedic outpatient clinic where he was reviewed by an orthopaedic registrar. He reported "*new lateral paraesthesia,*[3] *pain and swelling of right foot*". The orthopaedic registrar consulted with the orthopaedic consultant and referred Guy for an X-ray and computed tomography (**CT**) scan. Guy was also booked for elective surgical repair on 14 September 2023.

18. On 7 September 2023, Guy presented to the Dandenong Hospital Emergency Department (**ED**) and reported "*right foot swelling and pain*". An ED intern reviewed Guy and documented "*R) [right] foot diffusely more swollen than L) [left]…calves are soft and non-tender*". Guy was discharged home at about 11.10pm that evening and was encouraged to take regular analgesia.

19. On 14 September 2023, Guy attended Mulgrave Private Hospital (**MPH**) for his elective surgery. The surgery commenced at 11.11am and was completed at 12.20pm. It was performed by the same orthopaedic consultant who reviewed Guy on 6 September 2023.

20. Following the procedure, staff noted that Guy's "*right foot noted to be swollen ++*" and they had difficulty in obtaining the pedal pulse. Staff noted that Guy was haemodynamically stable, and he was transferred to the ward at about 3.45pm. Staff administered 40mg enoxaparin subcutaneously at about 6.00pm.

[3] Sensation of the skin that may feel like numbness, tingling, pricking, chilling and/or burning, also known as 'pins and needles'.

21. Guy was discharged the next day, after being deemed safe for discharge. At 1.30pm, Guy took a taxi from MPH to his home in Dingley Village.

22. Guy arrived home at about 2.20pm. As he walked towards the front gate, he collapsed on the ground. By chance, his wife was walking to the rubbish bin and observed Guy collapsed on the ground. He reported that he "*couldn't breathe*" and was in pain. Ms Kersey-Mason called Triple Zero and requested an ambulance. Before the allocated ambulance arrived, Ms Kersey-Mason flagged down another passing ambulance, who were on their way to a different job.

23. The first paramedics on scene observed Guy lying prone on the ground, cyanosed and pale in colour. He was noted to have low oxygen saturation (75%), was tachycardic and tachypnoeic. He lost consciousness for about 30 seconds, then regained consciousness. The first paramedics requested the urgent attendance of Mobile Intensive Care Ambulance (**MICA**) paramedics.

24. Shortly after MICA paramedics arrived, Guy experienced a pulseless electrical activity (**PEA**) cardiac arrest. Paramedics commenced cardiopulmonary resuscitation (**CPR**) and intubated Guy. Paramedics suspected a pulmonary embolism (**PE**) and alerted the VHH of their status.

25. Paramedics arrived at the VHH at about 3.45pm and were greeted by intensive care, cardiology and anaesthetic staff members. Staff commenced extracorporeal membrane oxygenation (**ECMO**) shortly after 4.00pm and were able to achieve a return of spontaneous circulation (**ROSC**). Guy underwent a CT pulmonary angiogram (**CTPA**) and CT of the brain, which demonstrated a saddle PE and diffuse cerebral oedema, respectively.

26. Brain death was confirmed on 17 September 2023. Guy's family graciously agreed to organ donation, which occurred the next day.

27. Following Guy's death, police confirmed that no criminal charges were laid against the driver of the other vehicle involved in the collision on 15 August 2023.

Identity of the deceased

28. On 17 September 2023, Guy Christian Mason, born 27 July 1975, was visually identified by his wife, Trudi Kersey-Mason.

29. Identity is not in dispute and requires no further investigation.

Medical cause of death

30. Forensic Pathologist Dr Victoria Francis from the Victorian Institute of Forensic Medicine (**VIFM**) conducted an examination on 19 September 2023 and provided a written report of her findings dated 22 September 2023.

31. The post-mortem external examination revealed an adult male with recent right knee surgery with a slightly swollen right leg as well as evidence of organ donation.

32. Examination of the post-mortem CT scan showed evidence of organ donation. There was cerebral oedema with pseudosubarachnoid haemorrhage as well as right leg subcutaneous oedema.

33. Documentation from the organ donation process recorded the presence of thrombi/clots during the heart and lung removal.

34. Toxicological analysis of post-mortem samples was not indicated and was therefore not performed.

35. Dr Francis provided an opinion that the medical cause of death was *1(a) Pulmonary thromboembolism* with contributing factors of *recent motorbike collision (rider), WHO Class II obesity, patellar tendon repair surgery*.

36. I accept Dr Francis' opinion.

FAMILY CONCERNS

37. Guy's family reported concerns in relation to his medical treatment directly to Monash Health (operator of Dandenong Hospital and VHH) which are reflected in the Serious Adverse Patient Safety Event (**SAPSE**) review that Monash Health completed in relation to Guy's death.

FURTHER INVESTIGATIONS AND CPU REVIEW

38. I determined to seek further material and refer this matter to the Coroners Prevention Unit (**CPU**)[4] for an independent review of the medical treatment Guy received in the lead-up to his passing. The Court received further information including:

[4] The CPU was established in 2008 to strengthen the prevention role of the coroner. The CPU assists the coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations. CPU staff include health professionals with training in a range of areas including medicine, nursing, and mental health; as well as staff who support coroners through research, data and policy analysis.

a) Monash Health's SAPSE report

b) Statement from the Director of Quality and Risk at MPH

c) Statement from the orthopaedic consultant hip, knee and trauma surgeon

d) Statement from Dr Alan Saunder, consultant surgeon and Program Director of the surgery and interventional procedures program at Monash Health

e) Statement from Dr Frank Soden, Director of Emergency Medicine at Dandenong Hospital.

39. MPH was also notified of the death and was asked to participate in a multi-agency review with Monash Health.

Monash Health SAPSE review

40. The SAPSE panel noted that the duration and type of venous thromboembolism (**VTE**) prophylaxis for patients with immobilised lower limb injuries is a debated topic in the orthopaedic community across Australia with no standardised protocols in Victoria. In addition, even with prophylaxis, VTE is not 100% preventable. The panel considered that if Guy received extended VTE prophylaxis as per organisational procedure, he would have had a significantly reduced risk of VTE (deep vein thrombosis and PE). The panel also considered that there were several missed opportunities for diagnosis and management of the VTE.

Care delivery issue #1 – VTE prophylaxis did not occur for the clinically indicated duration as per organisational guidelines

41. The panel noted that inpatient VTE prophylaxis was ordered in a timely manner and at the appropriate dose. However, extended pharmacological VTE prophylaxis on discharge was not prescribed and the panel considered that this was due to a combination of underappreciating the risk of VTE for this patient and a multifactorial lack of consideration of VTE prophylaxis following hospital discharge.

Underappreciation of risk for VTE

42. The SAPSE panel considered the factors that may have impacted a proper appreciation of VTE risk, which included recent and significant lower limb injury with lower limb immobilisation, and a BMI greater than 30kg/m^2.

Vascular injury and increased risk of deep vein thrombosis (DVT)

43. On review of the initial imaging, the SAPSE panel considered that with Guy's pattern of injury, with at least two major ligaments ruptured, there was likely a period of right knee dislocation at impact. It was explained that there is a risk of vascular injury specifically associated with multi-ligament knee injuries with an associated higher prevalence of DVT. It was noted that the clinician's level of experience (diagnostic imaging and clinicians involved in care) would influence the ability to identify an injury such as this. Recognition of Guy's increased risk of VTE associated with such an injury was not demonstrated while he was an inpatient or while he was an outpatient.

VTE risk assessment and extended VTE prophylaxis guidance

44. VTE is a known risk for all patients who are admitted to a hospital for more than 24 hours. The Monash Health 'VTE Care Pathway' is required to be completed on all admitted patients within 24 hours of admission. The SAPSE panel heard that the 'VTE Care Pathway' workflow is not embedded in clinical practice, as it is perceived that ordering VTE prophylaxis 'off pathway' is faster. The 'off pathway' method was used when ordering inpatient VTE prophylaxis for Guy.

45. Monash Health's guidelines recommend that pharmaceutical VTE prophylaxis is continued in immobilised patients with a lower limb injury who have additional risk factors for VTE until the splint/cast is removed. However, the guideline does not explicitly state that this includes continuation of VTE prophylaxis at home after discharge. Furthermore, the panel noted that the need for VTE prophylaxis for discharged patients is uncommon, and this specific indication is not widely known by clinicians.

46. If the 'VTE Care Pathway' was used for Guy, his risk factors such as high BMI and lower limb injury immobilisation would have been highlighted to the clinicians and VTE prophylaxis would have been recommended until the cast/splint was removed. However, clinicians are not alerted to the need for extended VTE prophylaxis during the discharge process, so using the 'VTE Care Pathway' for Guy was unlikely to have resulted in a continuation of his VTE prophylaxis upon discharge.

VTE risk assessment and management organisational guideline

47. The SAPSE panel heard that in addition to information regarding mandatory risk assessments, all clinician orientation packages reference the organisational guideline '*Venous*

Thromboembolism: Risk Assessment & Prevention', of which the above mentioned 'VTE Care Pathway' is adapted. When clinicians from the acute surgical unit and the orthopaedic specialty were interviewed, all clinicians advised that they were either unaware of this guideline or were unfamiliar with the VTE prophylaxis management flowchart provided within the guideline. The clinicians were aware of where organisational guidelines/policies/procedures can be found; however, they explained that the system is not user friendly and can be time-consuming and challenging to use.

Care Delivery Issue #2 – Signs of VTE not recognised at outpatient appointment

48. At the orthopaedic outpatient appointment, clinicians attributed swelling and increased pain to the initial injury and did not recognise this as a possible DVT. During interviews with the orthopaedic registrar and consultant, both described discounting DVT as Guy's right calf was soft and non-tender. The consultant further noted that foot and ankle swelling (to this extent) was often observed in patients with similar lower-limb injuries and immobilisation. The panel experts opined that excluding a missed injury was appropriate, however, worsening pain and increasing ankle and foot swelling should have been recognised as possible clinical signs of DVT and resulted in appropriate investigations to exclude same. The panel opined that an underappreciation of Guy's specific risk of DVT (as noted above) may have contributed to DVT being discounted.

Outpatient VTE guidelines

49. The panel heard that the current VTE risk assessment guideline is only applicable to inpatients, and assessment of VTE risk is not a standardised practice in the outpatient setting. Additionally, even if an outpatient is identified at risk of VTE, there are no current guidelines to outline management of such patients.

Care Delivery Issue #3 – Missed opportunity to diagnose DVT on presentation to ED

50. The SAPSE panel opined that the significance of Guy's presentation to Dandenong Hospital ED for increasing ankle and foot pain and swelling, after an outpatient review one day prior, was underappreciated. The panel opined that the ED team was likely reassured by the fact that the same leg symptoms did not elicit concern one day prior during the outpatient review.

51. The panel determined that the orthopaedic consultant's conclusion (i.e., that the symptoms were related to the initial injury) contributed to diagnostic anchoring by the ED team (i.e. excessive weight being given to initial information without adjustment of the clinical

hypothesis when new information emerges) and a missed opportunity to consider and diagnose a DVT.

Need for senior medical in-person review not recognised

52. As noted above, Guy was assessed by an ED intern, who discussed their findings with the consultant in charge. The panel acknowledged the "*busyness of the ED*" which reduced the capacity of senior medical staff to complete in-person reviews of patients. Given that Guy was assessed as being stable, with an ongoing management plan in place, the need for an in-person senior medical review was not recognised. The panel was unable to determine whether an in-person senior medical review would have resulted in consideration of differential diagnoses, such as DVT.

Care Delivery Issue #4 – Missed opportunity to diagnose DVT at pre-operative assessment (at MPH)

53. When Guy presented to MPH for his elective surgery, he was still experiencing increased pain and swelling in his right foot. Staff performed a preoperative VTE risk assessment and identified that Guy's risk of VTE was moderate. Despite this risk rating, medical assessment for DVT was not triggered. The panel heard that VTE risk is not a standardised part of the pre-operative medical assessment at MPH and that the possibility of DVT was not considered at the time.

54. The panel opined that in circumstances where there were signs of DVT, a lower limb ultrasound was clinically indicated, and that this should have been performed to identify or exclude DVT prior to Guy's surgery. A subject expert explained that proceeding with surgery in the setting of an existing DVT is associated with a risk of thrombus dislodgment and PE. The panel opined that confirmation bias, with Guy's symptoms attributed to the initial injury the week prior by the same clinician, influenced the lack of recognition/investigation of DVT during the pre-operative assessment.

Medical review prior to discharge

55. During the Statutory Duty of Candour (**SDC**) meeting, Guy's family reported that Guy informed Ms Kersey-Mason via text message that he was being discharged from MPH and that staff were still concerned about his leg. The panel identified that Guy was not medically reviewed on the day of his discharge (15 September 2023).

56. The panel heard that discharge plans and the scheduling of follow-up appointments are completed by the consultant as part of the post-operative documentation. Therefore, unless nursing staff escalate concerns to the consultant, it is routine for patients not to be medically reviewed on the day of their discharge. The panel were unable to determine whether a medical review on 15 September 2023 would have changed Guy's outcome, however the panel agreed that staff did not escalate concerns of DVT.

Other points considered and/or clarified

57. The panel made further observations as follows:

    a) Panel members agreed that the right knee CT report did not reflect the severity of the knee injury. The panel was informed that the reporting clinicians have been informed of this error and that there was a project underway that is aimed at addressing imaging reporting errors.

    b) During his outpatient appointment, Guy was advised to commence aspirin. The panel noted that there is minimal published evidence to suggest that aspirin is an effective VTE prophylactic.

    c) The panel considered that an MRI and the orthopaedic outpatient appointment should have occurred within seven to ten days of discharge. Despite the outpatient clinic forming part of the orthopaedic team, the admitting team were tasked with requesting the outpatient MRI and making the referral for the outpatient orthopaedic appointment. The panel found that Monash Health guidelines state that unless the consultation is for an opinion only, the consulting team (i.e. orthopaedics) is responsible for organising, reviewing and actioning any investigations required. Follow-up for these actions/investigations remains the responsibility of the consulting unit. During interviews, staff from both teams were unsure which team was responsible and described an inconsistent and team-dependent process.

    d) Both the orthopaedic outpatient referral and the outpatient MRI request were made by the general surgery intern. While a scheduling timeframe of one week post discharge was documented on the outpatient referral, this same timeframe was not specified on the MRI request. The panel experts explained that post-discharge MRIs are scheduled by technologists for the next available date/time, unless a more urgent timeframe is specified. If an urgent scan is required, the referring clinician either needs to specify

same on the referral or needs to call the MRI fellow to expedite the scan. In this case, the MRI was initially scheduled for three-months post discharge due to the MRI request not including the relevant details for timely scheduling. The panel noted that Guy had to make efforts to have the MRI expedited and ultimately it occurred within the recommended timeframe. However, the initial delay impacted scheduling of the outpatient appointment, and the patient was only reviewed 20 days post-discharge. The panel experts concluded that the delay had no impact on the injury itself, however it was detrimental to Guy's experience, increased his period of immobilisation and delayed the start of his recovery.

e) In accordance with Monash Health procedure, Guy was admitted under the care of the general surgical team and orthopaedics was the consulting specialty. Monash Health procedure states that all admitted trauma patients must be admitted under the care of the general surgical team for a minimum of 24 hours. When the general surgical team is no longer required, care is transferred to the appropriate team. In this case, Guy was not transferred to the care of the orthopaedics team, when this should have occurred. The panel concluded that transfer if care was likely seen as unwarranted in this case as no immediate orthopaedic intervention/management was required and discharge was planned for the following day. The panel found that while an in-person orthopaedic consultant review may not have triggered recognition or appreciation of VTE, it may have resulted in prioritisation of an inpatient MRI to assess injury severity and may have reduced the subsequent delays experienced as an outpatient.

Lessons learned and recommendations

58. The SAPSE review identified the following lessons learned:

a) The current VTE risk assessment guideline is only applicable to inpatients, and risk assessment of VTE is not a standardised practice in the outpatient setting.

b) There are no current guidelines that outline appropriate management of VTE prophylaxis for outpatients.

c) It is the responsibility of the consulting unit to order and action relevant outpatient investigations; however, this is currently inconsistent and is a team-dependent process.

d) The outpatient MRI initially being scheduled for three months post-discharge was a result of the request missing relevant details for timely scheduling, which delayed scheduling of the orthopaedic outpatient appointment.

59. The SAPSE review identified the following recommendations:

a) Program to ensure the findings/lessons of this review are shared with relevant employees, with a focus on learning and improvement.

b) The Quality and Safety Unit are to ensure all findings/learnings related to the current five themes being workshopped in 2023-2024, will feed into the current programs of work for improvements, remedial measures and any other measures to prevent similar harm in the future.

c) Quality and Safety Unit are to ensure that any other findings/learnings are placed on the "*SAPSE findings and learnings themes database*" and are included in the selection for prioritisation for the next top five themes to be workshopped for recommendations for improvement to prevent recurrence of a similar event. This will occur when the current themes have been completed.

d) MPH are to ensure that the findings and learnings of this case, applicable to their facility, are shared with the relevant employees.

60. Monash Health advised that all of the SAPSE recommendations have now been implemented.

Mulgrave Private Hospital review

61. MPH was notified of the death and participated in a multi-agency review, which was discussed at the Patient Care Review Committee (**PCR**), prior to a Root Cause Analysis occurring. A PCR review occurred in February 2024 and in the orthopaedic craft group review in April 2024. The MPH review recommended:

> *To be presented at every craft group the necessity of completion of VTE risk assessment by both nursing and medical staff.*

CPU review of contributing factors and proposed recommendations

62. The CPU noted that Guy had several VTE risk factors including single limb injury, lower limb immobilisation, elevated BMI and recent surgery (although it was a brief procedure). The

CPU explained that VTE prophylaxis within the orthopaedic community has been frequently debated over many years. The main and ongoing concern is the risk of bleeding with VTE prophylaxis versus the risk of VTE occurring without prophylaxis. As referenced by the SAPSE report, the CPU noted that even when VTE prophylaxis is administered, VTE is not 100% preventable.

63. In August 2023, Safer Care Victoria published the Victorian Guideline for the prevention of VTE in hospitalised adult patients. This guideline does not include patients in the community (e.g., outpatients). The CPU noted that there are no current guidelines that outline the appropriate management of VTE prophylaxis for outpatients.

64. The CPU noted that appropriate outpatient VTE prophylaxis remains an area of inconsistent considerations. The CPU suggested that I provide a copy of this finding to Safer Care Victoria to determine if there has been any consideration of VTE prophylaxis management in the outpatient setting of patients awaiting surgery, in particular, orthopaedic surgery. The CPU further suggested that I provide a copy of this finding to the Victorian branch of the Australian Orthopaedic Association to provide comment and advise if there has been consensus or consideration regarding VTE prophylaxis in outpatients awaiting orthopaedic surgery. I agree with these suggestions and, in addition to seeking input from both entities prior to making my findings, will direct that the finding is provided to both.

65. The CPU did not identify any other prevention opportunities beyond that identified in the SAPSE review.

Safer Care Victoria response

66. At my direction, the Court wrote to Safer Care Victoria (**SCV**) and noted the CPU's opinion that the issue of outpatient prophylaxis remains an area of inconsistent considerations. The Court invited SCV's response/comment on my proposed findings as to the same.

67. In response, SCV highlighted its August 2023 guideline (as discussed above). SCV noted that the primary scope of the guideline is for hospitalised patients, it does address patients leaving the emergency department with an immobilised lower limb injury. Section 7.3.9 of the guideline states that "*VTE prophylaxis is not recommended for patients with isolated, uncomplicated lower lib injury in the absence of additional patient related risk factors*".

68. SCV explained that patients with lower limb injuries who require immobilisation or who are non-weight bearing are at an increased risk of developing DVT. However, the overall risk of

developing DVT remains low for generally healthy, uncomplicated injuries and prophylaxis does not demonstrate benefit. The risk/benefit analysis for prescribing VTE prophylaxis in these patients is complex and challenging, as it involves balancing the risk of bleeding against the potential benefits of preventing DVT and/or PE.

69. SCV further noted that where additional baseline risk factors are present, for example, obesity, recent surgery, previous VTE or thrombophilia, the risk increases and SCV's guideline provides a risk stratification flowchart for ED discharges to support decision-making in this area.

Australian Orthopaedic Association response

70. At my direction, the Court also wrote to the Australian Orthopaedic Association (**AOA**) and noted the CPU's opinion that the issue of outpatient prophylaxis remains an area of inconsistent considerations. The Court invited its response/comment on same. Dr Alasdair Sutherland (**Dr Sutherland**), the AOA Victorian Executive Branch Chair, provided a response to the Court.

71. Dr Sutherland noted that he was a member of the expert working group that contributed to SCV's guideline in 2023. From the outset, Dr Sutherland clarified that a patient like Guy should not be grouped with the vast majority of patients who are waiting for planning orthopaedic surgery. He noted that a patient waiting for a hip replacement does not carry the same VTE risk as a patient who has suffered a traumatic injury and is immobilised while waiting a relatively short time for semi-urgent surgery to treat the injury.

72. Dr Sutherland further noted that while the guideline's scope is limited to exclude paediatric and outpatient treatment of VTE, it does provide guidance for the care of patients with a traumatic injury and subsequent immobilisation. He noted advice for prophylaxis in such cases should extend for up to 42 days, which would have covered Guy's period waiting for surgery.

73. Dr Sutherland also referenced the National Institute of Health and Care Excellence in the UK (**NICE**) guidelines issued in 2018 (updated 2019). The relevant guidance for lower limb immobilisation is as follows:

> *Consider pharmacological VTE prophylaxis with LMWH [low-molecular-weight-heparin] or fondaparinux sodium for people with lower limb immobilisation whose*

risk of VTE outweighs their risk of bleeding. Consider stopping prophylaxis if lower limb immobilisation continues beyond 42 days.

74. With respect to Guy's case, Dr Sutherland noted his specific risk factors included a traumatic injury, a period of immobilisation and obesity. He noted that there is no guideline that covers Guy's specific clinical scenario, however opined that both the SCV and NICE guidelines do provide some guidance on appropriate management of VTE prophylaxis in patients who have an injury and are subsequently immobilised.

75. Dr Sutherland stated that it is implicit within the SCV and NICE guidelines (as well as Monash Health's internal guidelines) that if immobilisation continues after hospital discharge, then VTE prophylaxis should continue for up to 42 days. Similarly, he noted that it was implicit in the SCV guideline that VTE prophylaxis should continue for patients who have had a joint replacement after their discharge from hospital.

76. Dr Sutherland concluded that the choice of specific VTE prophylactic agents remains contentious and there is no regime of prophylaxis that is 100% effective. He opined that the available guidelines (referenced above) would suggest that some form of chemical prophylaxis should have been administered in Guy's case, during the period of immobilisation after the initial injury and before readmission for semi-urgent surgery.

CPU review of guidelines in other jurisdictions

77. At my direction, the CPU reviewed the responses provided by the AOA and SCV, summarised above. The CPU also noted the VTE prophylaxis guidelines published in Queensland. For adult patients who are ambulatory with isolated lower limb immobilisation, the recommendations are:

    a) For low VTE risk patients (non-rigid, weight bearing immobilisation) – no VTE prophylaxis is required.

    b) For increased VTE risk patients (rigid immobilisation, non-weight bearing status or acute severe injury – dislocation, fracture or complete tendon rupture):

        i. If not temporarily immobilised with an above/below knee cast or 'backslab' – consider VTE prophylaxis on an individual patient basis.

ii. If temporarily immobilised with an above/below knee cast or 'backslab' and the patient has less than two VTE risk factors – consider VTE prophylaxis on an individual patient basis.

iii. If temporarily immobilised with an above/below knee cast and the patient has two or more VTE risk factors – strongly consider VTE prophylaxis.

SCV's 2026 updated guidelines

78. The CPU further noted the SCV released an updated Victorian Guideline for the Prevention of Venous Thromboembolism in Adult Hospitalised Patients 2026 (**the 2026 guideline**).[5] The 2026 guideline states that a VTE Risk Assessment is required for isolated injuries requiring temporary lower limb immobilisation, including emergency department discharges.

79. The 2026 guideline provides guidance for patients leaving the emergency department with an immobilised lower limb:

> *Patient with lower limb injuries who require immobilisation and/or who are non-weight bearing are at increased risk of developing deep vein thrombosis (**DVT**) in the affected limb. However, the risk of developing DVT is generally low. The risk-benefit analysis for prescribing VTE prophylaxis (i.e. balancing bleeding against DVT and/or PE) in these patients is complicated and challenging.*
>
> *The available clinical evidence for generally healthy patients with uncomplicated lower limb injuries does not suggest a benefit for VTE prophylaxis.*
>
> *We do not recommend VTE prophylaxis for generally healthy patients with uncomplicated lower limb injury in the absence of additional patient-related risk factors.*
>
> *[…]*
>
> *To date, the optimal agent for thromboprophylaxis in this setting is not known and has been based mainly on subcutaneous low-molecular weight heparin (**LMWH**) (e.g. enoxaparin). Direct-acting oral anticoagulants (**DOACS**) are included as an option due to ease of administration, given they have evidence for prophylaxis in other*

[5] https://www.safercare.vic.gov.au/sites/default/files/2023-10/Guideline%20for%20the%20Prevention%20of%20Venous%20Thromboembolism.pdf

scenarios (e.g. hip/knee arthroplasty). We acknowledge, however, the evidence for DOACs in isolated lower limb injuries is currently limited.

80. The 2026 guideline also notes that all patients should be assessed for potential VTE risk. It suggests that a VTE risk assessment should be performed on adult patients with an isolated injury who require temporary lower limb immobilisation, including those discharged from the emergency department.

Review of other recent coronial cases

81. The CPU noted three recent findings published by the Court in relation to VTE prophylaxis and VTE guidelines.

Kevin Harris

82. Mr Harris was 33 years old when he experienced a fall and left tibial plateau fracture on 27 December 2022 and died on 11 or 12 January 2023. His cause of death was pulmonary thromboembolism in the setting of deep vein thrombosis with left tibial plateau fracture sustained in a fall and WHO Class II obesity as contributing factors. He attended a GP and underwent an MRI which demonstrated a large effusion and subchondral fracture line.

83. Then-Coroner Audrey Jamieson (**Coroner Jamieson**) recommended that that the Royal Australian College of General Practitioners (**RACGP**) consider creating and publishing a clinical guideline for the diagnosis, prophylaxis and treatment of VTE for patients in the general practice setting.[6] The RACGP responded to advise that while it appreciated the importance of this issue, it did not currently produce specific guidelines on the management of VTE.

White-Wolf Patricia McLellan

84. Ms McLellan was 44 years old when she sustained a left ankle fracture. She was discharged from hospital in a CAM boot on 14 May 2025. At a follow-up appointment on 20 May 2025, clinicians recommended non-operative management with a cast. Ms McLellan experienced limited mobility. On 31 May 2025, she complained of leg pain and was found unconscious in her bathroom. The cause of death was given as pulmonary thromboembolism complicating a fractured left ankle (not operated), sustained in a fall.

[6] Finding into death without inquest – Kevin Harris.

85. Coroner Jamieson recommended that SCV consider incorporating recommendations for VTE prophylaxis in patients with lower limb trauma requiring immobilisation but not hospital admission. Her Honour also recommended that the Australian Commission on Safety and Quality in Healthcare consider incorporating recommendations for VTE prophylaxis in patients with lower limb trauma requiring immobilisation but not admission in the next iteration of the VTE Prevention Clinical Care Standard.[7] No official responses have been published in relation to this finding yet, noting that her Honour's finding was handed down in April 2026.

Vicki Grigg

86. Ms Grigg was 67 years old when she attended her GP for shortness of breath, wheeze and decreased oxygen saturation. She was admitted to hospital for five days where she was diagnosed with Influenza A. Ms Grigg died three days after her discharge. Her cause of death was pulmonary thromboembolism secondary to deep venous thrombosis with a contributing factor of WHO Class III obesity.

87. Coroner Leveasque Peterson recommended Goulburn Valley Health develop an evidence-based tool or checklist for VTE risk assessment with a view that they be completed upon admission and discharge.[8] Her Honour's finding was published in July 2026, and a response is yet to be received.

Procedural fairness responses from Monash Health and Mulgrave Private Hospital

88. As a matter of procedural fairness, the Court wrote to Monash Health and MPH and advised of my intention to finalise this matter by way of written findings '*on the papers*', without holding an inquest. The correspondence also indicated my intention to rely upon the findings of the SAPSE review.

89. In response to the correspondence, Monash Health submitted that it did not wish to make any further submissions.

90. MPH advised that it was unable to comment on any of the preoperative medical assessments that were conducted by the treating Visiting Medical Officer (**VMO**) orthopaedists and the

[7] Finding into passing without inquest – White-Wolf Patricia McLellan.
[8] Finding into death without inquest – Vicki Grigg.

VMO anaesthetist, as they are private practitioners who are credentialled to work at MPH but are not employed by them.

Procedural fairness response – orthopaedic consultant

91. As a matter of procedural fairness, the Court wrote to the orthopaedic consultant, who was the Guy's treating VMO at MPH. The orthopaedic consultant reviewed the material obtained by the Court and submitted several matters for my consideration.

Clarification of 6 September 2023 appointment

92. The orthopaedic consultant first reviewed Guy on 6 September 2023 in the outpatient clinic. During the consultation, he reviewed Guy's knee and specifically the patella tendon rupture, being the primary reason for the consultation. Guy complained of foot pain but did not raise calf pain.

93. The orthopaedic consultant noted that the ED records for the following day documented a non-tender calf. He submitted that this supported the absence of DVT symptoms at the time.

94. The orthopaedic consultant explained his usual practice is to examine the calf and consider investigations if calf pain or swelling were reported. In this case, DVT suspicion was not triggered based on Guy's presentation.

Response to material in the police summary

95. The orthopaedic consultant noted some of the language conveyed in the police summary that accompanied the Coronial Brief and noted multiple inaccuracies. I have not relied on the police summary for the purposes of this finding and therefore this matter does not require further exploration.

Response to SAPSE report

96. As noted above, the SAPSE panel considered that with Guy's pattern of injury, with at least two major ligaments ruptured, there was likely a period of right knee dislocation at impact. The orthopaedic consultant disputed this finding. He explained that by definition, a knee dislocation is a rupture of two or more of the cruciate and collateral ligaments. This was not the case with Guy, because there was only one cruciate ligament that was ruptured. The patella tendon was also ruptured, but this tendon is not involved in the classification of knee dislocation injuries.

97. The orthopaedic consultant submitted that it was important to clarify this issue, as it avoids any inference that Guy's condition was extraordinarily severe or immobilising, which would increase the perceived VTE risk.

98. The orthopaedic consultant explained that Guy did not complain of calf pain or swelling, the calf was reportedly non-tender and Guy's complaints focused on foot pain. Based on these observations, there was no clinical trigger requiring DVT investigation at the time. Furthermore, Guy was mobilising on crutches, his ankle was mobile (which meant his calf pump was functioning) and the knee was immobilised only in a Zimmer splint. The orthopaedic consultant noted that this is relevant to VTE risk assessment, as immobilisation is a major risk factor. In his view, Guy was not considered high risk for thrombosis at that stage.

99. The orthopaedic consultant concluded that at the time of the consultation, Guy did not report calf pain or swelling and the calf was non-tender. In the absence of clinical features suggestive of DVT, there was no indication to arrange an ultrasound or initiate anticoagulation. He noted that such investigations would only have been considered if symptoms such as calf swelling or tenderness had been present.

100. I have been assisted by the submissions of the orthopaedic consultant, though have concluded, as noted below, that there were opportunities for optimised care in Guy's case.

FINDINGS AND CONCLUSION

101. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:

a) The identity of the deceased was Guy Christian Mason, born 27 July 1975;

b) The death occurred on 17 September 2023 at Victorian Heart Hospital, 631 Blackburn Road, Clayton Victoria 3168, from *pulmonary thromboembolism with contributing factors of recent motorbike collision (rider), WHO Class II obesity, patellar tendon repair surgery*; and

c) The death occurred in the circumstances described above.

102. Having considered all of the evidence, including the CPU review and Monash Health SAPSE report, I am satisfied that if Guy had received extended VTE prophylaxis as per organisational procedures, he would have had a significantly reduced risk of VTE. There were multiple opportunities to potentially identify and diagnose VTE, including during Guy's outpatient appointment on 6 September, his ED visit on 7 September and during his admission to MPH on 14 and 15 September 2023. I cannot determine conclusively that Guy's death would have been prevented, even with extended VTE prophylaxis, however it remains possible that it could have been.

103. I have noted the considered submissions made by the orthopaedic consultant involved in Guy's case, and have also reviewed other recent cases before the Court. I find that the processes for, and use of, anticoagulation for the prevention of VTE continue to give rise to complex issues. Given the recent recommendations made by Coroners Jamieson and Peterson, I do not intend to make any further recommendations at this time. However, I will direct a copy of this finding be provided to Safer Care Victoria, the Australian Orthopaedic Association and the Australian Commission on Safety and Quality in Healthcare for their consideration and to assist in informing any future work in this space.

I convey my sincere condolences to Guy's family for their profound loss and thank them for their generosity in agreeing to organ donation.

ORDERS AND DIRECTIONS

Pursuant to section 73(1A) of the Act, I order that this finding be published on the Coroners Court of Victoria website in accordance with the rules. I direct that a copy of this finding be provided to the following:

Trudi Kersey-Mason, Senior Next of Kin

Australian Commission on Safety and Quality in Healthcare

Australian Orthopaedic Association

Donate Life

Monash Health

Mulgrave Private Hospital

Orthopaedic consultant (C/- Kennedys Law)

Safer Care Victoria

Transport Accident Commission

Senior Constable Shaun Crawford, Coronial Investigator

Signature:

Coroner Ingrid Giles

Date: 17 August 2026

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.