CORONER'S COURT OF NEW SOUTH WALES

Inquest:	Inquest into the death of Grant Cook
Hearing dates:	29 & 30 April 2019, 1 & 2 May 2019, 16 & 17 October 2019, 24 June 2020
Date of findings:	30 October 2020
Place of findings:	Coroner's Court of New South Wales, Lidcombe
Findings of:	Magistrate Derek Lee, Deputy State Coroner
Catchwords:	CORONIAL LAW – traumatic brain injury, head injury assessment, sports trainers, detection and management of head injuries in rugby league, second impact syndrome, Country Rugby League, ProQA, despatch of aeromedical resources, Rapid Launch Trauma Coordinator, aeromedical retrieval, ineffective breathing, traumatic cardiac arrest, NSW Ambulance
File number:	2017/305544
Representation:	Ms A Horvath, Counsel Assisting, instructed by Ms C White & Mr G Martin, Crown Solicitor's Office Mr A Casselden SC and Mr M Connor for Andrew McCabe and Chris MacDonnell in their capacity as the joint and several liquidators of Country Rugby League of New South Wales Limited (in liquidation), instructed by Colin W Love & Co Mr B Bradley for New South Wales Ambulance, instructed by Hicksons Lawyers Ms S Anderson for Mr K Spencer, instructed by Byron Legal Mr T O'Reilly for New South Wales Rugby League Limited Mr P Rooney for Mr R Murcott, instructed by Makinson d'Apice Lawyers Mr R Sergi for Mr G Golds, instructed by McCabe Curwood

Findings:	I find that Grant Cook died on 12 September 2016 at Gold Coast University Hospital, Southport Queensland 4215. The cause of Grant's death was hypoxic brain injury as a result of a respiratory arrest, after inadequate respiration and failure of airway protection associated with a grand mal seizure, following an accidental traumatic brain injury. This led to eventual cardiac arrest and brain ischaemia, causing cerebral and brainstem herniation. The accidental traumatic brain injury was most likely caused when Grant was tackled whilst playing in a rugby league game, with the mechanism of injury involving Grant falling to the ground whilst unbalanced and his head impacting with the ground.
Recommendations:	See Appendix A

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1. Introduction

1.1 On the afternoon of 11 September 2016 Grant Cook, a 28 year old husband and father of two, was doing what many thousands of people do on a Saturday afternoon during footy season: playing a game of rugby league. This game happened to be the Northern Rivers Regional Rugby League preliminary final at Stan Sercombe Oval in Murwillumbah. Grant was playing for the Murwillumbah Mustangs against the Casino Cougars.

1.2 Shortly before halftime Grant was involved in a tackle and a subsequent incident with one or more players from the opposing team. Not long afterwards Grant was seen to be in distress and left the field. Moments later, whilst sitting on the team bench, Grant collapsed onto the ground and began convulsing, before going into cardiac arrest. Resuscitation measures were commenced, initially by personnel at the game and later by paramedics called to the scene. Grant was later transported to hospital but by this stage he had suffered an irreversible brain injury and, tragically, he later died during the early hours of the following morning.

2. Why was an inquest held?

2.1 Under the *Coroners Act 2009* (**the Act**) a Coroner has the responsibility to investigate all reportable deaths. This investigation is conducted primarily so that a Coroner can answer questions that they are required to answer pursuant to the Act, namely: the identity of the person who died, when and where they died, and what was the cause and the manner of that person's death. All reportable deaths must be reported to a Coroner or to a police officer.

2.2 As Grant's death was not due to natural causes but, rather, a consequence of an event that occurred during the rugby league game that he was playing in, this made his death reportable pursuant to the Act. Additionally, the initial postmortem examination of Grant raised questions as to both the cause and the manner, or circumstances, of his death. At the commencement of the coronial investigation the circumstances which precipitated Grant leaving the field and his subsequent collapse were not entirely clear. Further, the coronial investigation also identified aspects of the care and treatment provided to Grant at the scene, as well as the emergency services response, that raised additional questions as to the manner of his death. For all of these reasons, an inquest was required to be held.

2.3 In this context it should be recognised at the outset that the operation of the Act, and the coronial process in general, represents an intrusion by the State into what is usually one of the most traumatic events in the lives of family members who have lost a loved one. At such times, it is reasonably expected that families will want to grieve and attempt to cope with their enormous loss in private. That grieving and loss does not diminish significantly over time. Therefore, it should be acknowledged that the coronial process and an inquest by their very nature unfortunately compels a family to re-live distressing memories several years after the trauma experienced as a result of a death, and to do so in a public forum. This is an entirely uncommon, and usually foreign, experience for families who have lost a loved one.

2.4 It should also be recognised that for deaths which result in an inquest being held, the coronial process is often a lengthy one. The impact that such a process has on family members who have many unanswered questions regarding the circumstances in which a loved one has died cannot be overstated. It should be recognised that in this particular case the inquest into Grant's death took an unusually lengthy period of time due to a number of factors that were beyond the expectation and control of those participating in the process.

2.5 Inquests have a forward-thinking, preventative focus. At the end of many inquests Coroners often exercise a power, provided for by section 82 of the Act, to make recommendations. These recommendations are made to organisations and individuals in order to draw attention to systemic issues that are identified during a coronial investigation, and examined during the course of an inquest. Recommendations in relation to any matter connected with a person's death may be made if a Coroner considers them to be necessary or desirable. Where an inquest is able to identify issues that may potentially adversely impact upon the safety and well-being of the wider community, recommendations are made in the hope that, if implemented after careful consideration, they will reduce the likelihood of other adverse or life-threatening outcomes.

3. Grant's life

3.1 Inquests and the coronial process are as much about life as they are about death. A coronial system exists because we, as a community, recognise the fragility of human life and value enormously the preciousness of it. Understanding the impact that the death of a person has had on their family and those closest to that person only comes from knowing something of that person's life and how the loss of that life has affected those who loved that person the most. Therefore it is extremely important to recognise and acknowledge Grant's life in a brief, but hopefully meaningful, way.

3.2 Grant had achieved much in his relatively young life. He had worked hard at his studies, completing a double degree at university. Professionally, Grant had achieved success after taking over and running his family's business. Grant's father, Geoff, so trusted and believed in Grant's business skills that he began looking forward to early retirement, comforted by the fact that the business was in Grant's capable hands. Indeed, Grant's business acumen was recognised when, at the age of 25, he was a finalist for a New South Wales Small Business of the Year Award.

3.3 Outside of work, Grant had a sense of adventure and had an opportunity to travel the world before starting his own family with his wife Colleen, and their two young children, Mia and Carter. Grant had a strong sense of family and friendship. He was the type of person who would selflessly always be willing to lend a hand to mate.

3.4 From a young age Grant was always very heavily involved in sport. He played for a number of rugby league clubs before eventually moving to the Murwillumbah Mustangs in the hope of winning a premiership. Grant was also heavily involved in his local cricket club. Grant displayed exceptional leadership skills both on and off the field, which was recognised by him being appointed to various leadership and management roles.

3.5 Geoff described Grant as a social organiser. This is no doubt because he had many friends who valued him as a person and respected him as a young man of integrity. This is perhaps best reflected by the extraordinary number of people who sought to pay respects to Grant following his untimely passing.

3.6 It is extremely distressing to know that at such a young age, Grant has been separated from his loving wife, his young children, his parents and siblings. It is small comfort to know that Grant was lost to his family and friends at a time when he was playing a game that he loved and which was one of his life's passions. Grant's many positive qualities as a husband, father, son, brother, and mate has undeniably left a lasting memory on many people.

4. The events of 11 September 2016

4.1 At this point it is convenient to provide a brief summary of the events that took place on the afternoon of 11 September 2016 at Murwillumbah. Certain factual matters which give rise to the issues examined by the inquest will be explored in greater detail below.

4.2 On 11 September 2016 the Northern Rivers Regional Rugby League (**NRRRL**) First Grade Preliminary Final was held between Casino and Murwillumbah at Stan Sercombe Oval, Murwillumbah (**the Oval**). The game commenced at approximately 2:45pm. The game was recorded on video footage which was subsequently tendered into evidence during the course of the inquest (**the game video**).

4.3 Shortly before half time, at about 33 minutes and 20 seconds into the video, Murwillumbah was in possession of the football. The football was passed to Grant who performed a chip kick less than two seconds later. At the time of performing the kick, or shortly afterwards, Grant was tackled by a Casino player. This occurred sometime between around 3:18pm and 3:20pm. After Casino regained possession of the ball following Grant's kick, a Casino player ran almost the length of the field to score a try. As this was occurring a scuffle took place between Grant and one or more Casino players as a result of the aftermath of the earlier tackle of Grant.

4.4 After the kick at goal by Casino following the try, play resumed. At around 37 minutes into the video Grant is seen to be hanging behind the play. A short time later, Grant is seen on the video to be holding and rubbing his head. Grant left the field a short time later and whilst it is not entirely clear when this occurred, it appears to be sometime between 3:22pm and 3:25pm. This is consistent with Grant having played on for at least five or six more minutes after the tackle referred to above.

4.5 As Grant left the field he was observed by several witnesses to appear dazed and to stumble to his knees. After being helped off the field by a team trainer, Grant was moved to the Murwillumbah bench where he sat down. A short time later, Grant was seen to collapse to the ground and begin convulsing. Grant was placed in the recovery position and a call was made to Triple Zero at 3:35pm for an ambulance to attend the scene. Grant was initially assisted by Dr Jonathan Stephenson, who was one of the spectators at the game, as well as by the Murwillumbah trainers and ground officials. A short time later Grant went into a cardiac arrest and resuscitation measures were commenced by Dr Stephenson and others involved in Grant's initial care.

4.6 At 3:37pm a road ambulance was despatched from Tweed Heads and arrived at the ground at around 3:57pm. A second road ambulance and an off-duty paramedic also arrived at the scene a short time later. The attending paramedics found Grant to be unconscious, with no pulse and no respirations, and with fixed, dilated pupils. The attending paramedics commenced cardiopulmonary resuscitation (**CPR**), and turned Grant on his side whilst removing vomitus and fluid from his mouth. A laryngeal mask airway[1] (**LMA**) was inserted, and Grant was later intubated so that he could be ventilated and his airway protected. One of the attending paramedics subsequently inserted a cannula in order to carry out a chest decompression on the basis that it

[1] A medical device designed to secure a patient's airway and keep it open.

was believed that Grant had a tension pneumothorax[2]. Unfortunately the cannula was inserted incorrectly and penetrated the cardiac wall, resulting in blood flow which needed to be clamped off with arterial forceps.

4.7 Resuscitation efforts continued for the next 15 minutes with Grant being given boluses of adrenaline. Grant briefly went into ventricular tachycardia[3] before there was a return of spontaneous circulation at approximately 4:14pm.

4.8 Grant was subsequently loaded into a road ambulance for transported to Gold Coast University Hospital, arriving at 5:06pm. On admission a computed tomography (**CT**) scan of the brain was performed which indicated that Grant had suffered irreversible brain injury. Following discussion with Grant's family, advanced life support measures were removed, and Grant was tragically pronounced deceased at 2:00am on 12 September 2016.

[2] A life-threatening condition, usually as a result of blunt or penetrating chest injury, where air leaks into the space between the lungs and chest wall.
[3] A fast abnormal heart rate caused by abnormal electrical signals in the lower chambers of the heart.

5. What issues did the inquest examine?

5.1 Prior to the commencement of the inquest a list of issues was circulated amongst the sufficiently interested parties, identifying the scope of the inquest and the matters that the inquest would consider. Country Rugby League of New South Wales Limited (**CRL**) and New South Wales Ambulance (**NSWA**) were identified as some of the sufficiently interested parties in the inquest.

5.2 That list identified the following issues:

(a) The cause of Grant's distress on the football field and his subsequent collapse after he left the field;

(b) The nature and adequacy of the response by the trainer(s) from CRL following the potentially high tackle on Grant, his subsequent distress on the field, his leaving the field, and his subsequent collapse;

(c) The nature and adequacy of the assistance and first aid provided to Grant prior to the arrival of NSWA officers;

(d) The nature and adequacy of the response by NSWA, including:

(i) Was the designation of 1C appropriate for Grant at the time of the initial call?

(ii) Was the 25 minute response time for the NSWA paramedics to arrive on the scene appropriate and in accordance with NSWA's guidelines?

(iii) Was the care provided by NSW Ambulance from the time that the paramedics arrived on the scene at 15:57, to the time that Grant reached Gold Coast University Hospital at approximately 17:01 appropriate?

(iv) Should NSWA have despatched a retrieval team with the Life Saver 4 Helicopter?

(e) The nature and adequacy of policies applicable to the NRRRL competition on 11 September 2016 relating to:

(i) The detection and management of head injuries;

(ii) The provision of first aid; and

(iii) The availability of medical equipment and medically trained personnel.

(f) Whether any recommendations are necessary or desirable to make in relation to any matter connected with the death?

5.3 Each of the above issues is discussed in detail below. In order to assist with consideration of some of these issues, opinion was sought from the following experts below as part of the coronial

investigation. Each of the experts provided reports which were included in the brief of evidence, and some of the experts also gave evidence during the inquest:

(a) Associate Professor Mark Adams, consultant cardiologist;

(b) Professor Michael Besser, emeritus consultant neurosurgeon; and

(c) Professor Anthony Brown, consultant emergency physician.

6. What was the cause and manner of Grant's death?

6.1 A postmortem examination was performed at Gold Coast University Hospital on 13 September 2016 by Associate Professor Alex Olumbe. Relevantly, the examination identified the following pathology:

(a) Penetration into the chest cavity through the second intercostal space but with no involvement of the intercostal artery or vein;

(b) A defect in the anterior aspect of the middle section of the pericardium surrounded by an area of haemorrhage and a transmural defect in the anterior left ventricle;

(c) Significant natural disease in the form of moderate to severe left anterior descending coronary atherosclerosis[4];

(d) Hypoxic ischaemic encephalopathy[5], but with no brain haemorrhage or direct physical trauma to the brain.

6.2 In his autopsy report Associate Professor Olumbe opined that the cause of Grant's death was "*hypoxic brain injury (hypoxic ischaemic encephalopathy) which could be consequent to a cardiac arrest (heart attack) precipitated by coronary atherosclerosis and/or loss of blood (approximately 1 L) following left thoracostomy in which the decompression needle was inadvertently inserted into the heart during resuscitation*".[6] Associate Professor Olumbe went on to note that as Grant had experienced an impact during the match this raised the possibility of blunt cardiac trauma, namely cardiac contusion, or cardiac concussion. In his report Associate Professor Olumbe noted that cardiac contusion is characterised by normal blood pressure, delayed or absent rhythm disturbances and no loss of consciousness, whilst cardiac concussion is defined as a drop in blood pressure, immediate and transient rhythm disturbances, and loss of consciousness. Associate Professor Olumbe noted that a trivial blunt blow to the chest in the presence of coronary atherosclerosis in a 28-year-old young man could have resulted in subtle alterations in myocardial function and electrical conduction leading to arrhythmia with sequelae of hypoxic brain injury.

6.3 In conclusion Associate Professor Olumbe opined that "*the underlying cause of hypoxic brain injury could either be a cardiac arrest triggered by blunt blow to the chest, and/or coronary atherosclerosis which could have been exacerbated by acute loss of blood from the heart during the thoracostomy procedure at resuscitation*".[7] It is apparent, then, that whilst the direct cause of Grant's death was identified from the autopsy, the event which precipitated it was not entirely clear. Accordingly, each of the medical experts instructed as part of the coronial investigation was asked to consider this issue.

6.4 Professor Besser opined that the "*most likely cause of [Grant's] death is a hypoxic brain injury as a result of a respiratory arrest following poor respiration and failure of airway protection associated*

[4] A build up of fatty deposits in the walls of the arteries, causing obstruction of blood flow.
[5] Brain injury caused by deprivation of oxygen to the brain.
[6] Exhibit 1, page 36.
[7] Exhibit 1, page 37.

with a grand mal seizure. This led to a cardiac arrest with additional brain ischaemia. Finally this sequence of events produced cerebral oedema with brain swelling and raised intracranial pressure to the extent of causing the cerebral and brainstem herniation leading to brain death".[8] Professor Brown similarly opined that the likely cause of Grant's death "*is hypoxia secondary to inadequate respirations following a grand mal seizure, and going on to cause a full cardiac arrest*".[9] Associate Professor Adams also opined that "*the most likely cause of death was cerebral hypoxia due to ineffective respiration following significant head trauma*".[10]

6.5 In evidence Professor Brown described the sequence of events on the afternoon of 11 September 2016 in the following way: "*[Grant] suffered a grand mal seizure and that led to breathing difficulties with respiratory distress and that led to snorting and snoring type respirations and vomiting. And that then led to an obstructed airway which prevented proper breathing which led directly to hypoxia which is lack of blood - lack of oxygen in the blood and the ongoing hypoxia lead to a respiratory arrest where there was no respiration, where [Grant's] mouth was full of vomit. And that led to further lack of oxygen to the brain and lack of oxygen to the heart that eventually led to a full cardiac arrest*".[11]

6.6 **Conclusions:** The cause of Grant's death was hypoxic brain injury as a result of a respiratory arrest, after inadequate respiration and failure of airway protection associated with a grand mal seizure, following an accidental traumatic brain injury. This led to eventual cardiac arrest and brain ischaemia, causing cerebral and brainstem herniation. The accidental traumatic brain injury was most likely caused when Grant was tackled whilst playing in a rugby league game, with the mechanism of injury involving Grant falling to the ground whilst unbalanced and his head impacting with the ground. The manner of Grant's death is discussed in greater detail below.

[8] Exhibit 1, page 641.109.
[9] Exhibit 1, page 641.83.
[10] Exhibit 1, page 641.3.
[11] 17/10/19, T3.14.

7. What was the cause of Grant's distress on the field and his subsequent collapse after he left the field?

7.1 At this point it is necessary to examine in more detail some factual matters relevant to the consideration of the issues which the inquest examined.

Video evidence

7.2 At 33:20 into the game video (at approximately 3:18pm) Murwillumbah had used up its five tackles. The ball was passed to Grant who kicked (also described in the evidence as a chip, or an up and under) it high into the air (**the Kick**). Shortly after the Kick, Grant was tackled by a Casino player and went to the ground (**the Tackle**). After Casino regained possession of the ball a Casino player ran the length of the field to score a try (**the Try**). As this occurred a scuffle of some kind occurred between Grant and a Casino player or players (**the Scuffle**). Whilst the Scuffle was not captured on the match video, a conversation between the referee and touch judges was recorded at 34:07 of the game video in which the words, "*Nah mate, just push and shove*" are heard.

7.3 Following the awarding of a try to Casino and a kick at goal, play resumed at 35:50 into the game video (approximately 3:20pm). Approximately one minute later there was a scrum (**the First Scrum**) and the ball was received by Grant who passed it on several seconds later. At 37:22 in the game video Grant is seen to be walking slowly behind the play.

7.4 Several seconds later (at 37:32 in the game video) Grant is seen to be still slightly behind the play, and rubbing his head with his left hand. At 37:41 the game video records Grant to be touching his head, first with his left hand, and then with both hands. At 37:57 the match video depicts Grant to be rubbing his head again, this time with his right hand. Grant is last seen on the match video at 38:00 and left the field sometime later. Whilst the precise time of Grant's departure from the field is not entirely clear he is not seen on the game video at 38:31 (at approximately 3:23pm) when a subsequent scrum took place (**the Second Scrum**). On this basis it appears that Grant left the field sometime between about 3:22pm and 3:25pm. Halftime was later called at approximately 3:28pm.

Summary of witness accounts

7.5 It is useful here to summarise and examine the evidence of various witnesses in relation to the Kick, subsequent Tackle and the Scuffle:

(a) Joshua Gollan was the referee for the game. He was a referee with the CRL Referees Association and a member of the National Rugby League (**NRL**) Referees Association. As at September 2016 Mr Gollan had been an accredited referee for 11 years and had refereed approximately 140 first-grade games. Following the Kick, Mr Gollan followed the trajectory of the ball, as he was required to do, and positioned himself so that his back was towards Grant and the Casino players involved in the Tackle. As a result, Mr Gollan did not see what was occurring behind him but "*became aware of some sort of incident*"[12] that one of the touch judges (Heath Benn) commented on.[13] Following the Try, Mr Gollan checked with the touch

[12] Exhibit 1, Tab 23 at [8].
[13] The three member officiating crew all had earpieces and microphones which allowed them to communicate with each other during the game.

judges to ensure that nothing had occurred with the play following the Kick that would prevent a try from being awarded. Mr Gollan heard Mr Benn say words to the effect of, "*It's all good. There was nothing late or high and there were no punches thrown*".[14] In evidence Mr Gollan confirmed that he was told by Mr Benn that some pushing and shoving had occurred, and that there had been some pushes in the face by the opposing players but no punches were thrown. From the information that was given Mr Gollan was satisfied that nothing untoward had occurred.[15] Relevantly, Mr Gollan did not see Grant either rubbing or holding his head following the Tackle.

(b) Peter O'Connor was the touch judge on the eastern side of the field for the game. He had experience refereeing in the Northern Rivers area since 1990. Following the Kick Mr O'Connor saw a Casino player come "*into contact with Grant after the ball had been kicked*".[16] As Mr O'Connor was on the opposite side of the field to where the Tackle occurred, his role was to follow the ball and remain with the play as it continued. As a result, Mr O'Connor did not see anything that may have occurred after the Kick. After the Try, Mr O'Connor heard the discussion between Mr Gollan and Mr Benn regarding "*a little bit of push and shove*"[17] and whether the try should be awarded. However Mr O'Connor did not personally see any of the described push and shove.[18] After the Try was awarded, and during the course of play leading up to halftime, Mr O'Connor recalled that Grant enquired whether he (Mr O'Connor) had seen the aftermath of the Kick and/or the Scuffle. Mr O'Connor told Grant that if he had seen anything that would have warranted the making of a report, he would have done so. Mr O'Connor had no recollection of seeing Grant touching or rubbing his head, or seeing him leave the field.

(c) Heath Benn was the touch judge on the western side of the field for the game. He had approximately 20 years experience as a rugby league referee as at September 2016. Mr Benn was approximately 15 to 20 metres away from Grant when the Kick occurred. After the Kick, Mr Benn followed the trajectory of the ball and saw that it was caught by a Casino player. As a result, Mr Benn did not see the Tackle. However, as Mr Benn continued to follow the play, and saw a Casino player running the length of the field, Mr Benn's attention was drawn to the Scuffle. In his peripheral vision Mr Benn saw that Grant and a Casino player were holding each other by the collars of their jumpers. Mr Benn continued watching the Scuffle to ensure that there was no foul play and no punches thrown[19], and estimated that the Scuffle lasted about 30 seconds.[20] Once the players involved in the Scuffle separated and ran down the field, Mr Benn did so as well. As noted above, following the try Mr Benn reported to Mr O'Connor that he observed some "*push and shove*" but confirmed that no punches had been thrown by any players.[21]

(d) Grant's father, Geoff Cook, was a spectator at the game and standing on the eastern side of the field, roughly parallel to the Casino 20 metre line at the time of the Kick. Geoff explained that

[14] Exhibit 1, Tab 23 at [9].
[15] 29/4/19, T45.24.
[16] Exhibit 1, Tab 23A at [11].
[17] 29/4/19, T51.8.
[18] 29/4/19, T51.17.
[19] 29/4/19, T65.14.
[20] 29/4/19, T67.47.
[21] Exhibit 1, Tab 23B at [13].

he "*tended to watch Grant a little more closely than the general play*".[22] In his statement to police Geoff said that after the Kick he saw that "*Grant had a collision with the defensive players from Casino*". This resulted in "*a bit of an altercation*" between players from both sides.[23] Geoff did not see Grant hit by anyone but observed the Scuffle where he saw Grant throw a right-handed air swing which did not connect, as the players were separated. Geoff also told police in his statement that following the Scuffle he spoke to Grant's wife, Colleen, who was watching the game with him and said words to the effect of, "*We need to watch [Grant] because he's just taken a knock*".[24] Geoff observed that "*Grant wasn't displaying any discomfort as far as I could see*".[25] After the kick at a goal following the Try, Geoff saw Grant step out of the five eighth position and stand back from the line. He said that he saw Grant go down to his haunches, vomit, and then stumble and collapse as he was escorted to the sideline.

In evidence, Geoff said that he saw "*a heavy contact*"[26] between Grant and a Casino player, followed by the Scuffle leading to Grant going to the ground. Geoff described it in this way: "*I seen [sic] Grant try to fight and defend himself, but he seemed a little bit wobbly and didn't seem too well to me at that point*".[27] When questioned about this observation in evidence, Geoff acknowledged that he made no mention of it in his statement to police, but indicated that he had provided greater detail when asked about the incident during his evidence in chief. Geoff went on to describe seeing Grant stumble, reel backwards and attempt to throw what Geoff called a clumsy punch. Geoff noted that Grant appeared to be unstable on his feet and his overall observations of Grant caused him to remark to Colleen, "*We need to watch him. He doesn't look well. Let's keep an eye on him*".[28]

(e) Kevin Spencer was the head trainer for Murwillumbah and as at October 2016 had approximately 17 years experience as a trainer. Mr Spencer took part in a record of interview with police on the afternoon of 11 September 2016. In the interview was asked to describe what had occurred during the game that required the involvement of emergency services. In response, Mr Spencer told police: "*[Grant] took a, um, they just kicked a high ball, a bloke come [sic] through and just hit him with a, a hit. Don't know what it was a hit [sic], how it was hit, but he was hit. He went to ground. He got up for a couple of minutes, got up for about a minute. They had a bit of a scuffle, he got hit again. Then he wandered around for a second, and he said he was sort of all right, but he was a bit dazed*".[29] Mr Spencer said that he saw a tackle and told police, "*I personally thought it was late, and I, it was probably wrong…just, it's only 'cause I'm a trainer and I, and I'm with Murwillumbah*".[30] After the Tackle, Mr Spencer described seeing "*a slight altercation*" between Grant and a Casino player and that "*Grant wasn't his full self, because the other bloke hit him again, and he sort of stepped back a bit,*

[22] Exhibit 1, Tab 15 at [14].
[23] Exhibit 1, Tab 15 at [15].
[24] Exhibit 1, Tab 15 at [16].
[25] Exhibit 1, Tab 15 at [16].
[26] 29/4/19, T28.3.
[27] 29/4/19, T28.5.
[28] 29/4/19, T29.14.
[29] Exhibit 1, page 112.
[30] Exhibit 1, page 113.

and it's not like Grant to sort [sic] take a backward step, 'cause he would be straight back into it".[31]

Mr Spencer subsequently provided a statement to police in April 2019. In that statement, Mr Spencer described the tackle he had referred to in his record of interview in this way: "*My recollection of the tackle was that it may have been a little bit late, but I didn't think there was too much in it. I didn't see [Grant] have any adverse reaction to the tackle at that time*".[32] Mr Spencer went on to describe a further incident that occurred after play had resumed following the Try. Mr Spencer recalled seeing a scrum (believed to be the First Scrum), in which Grant was positioned at the back of the scrum, where Casino won control of the ball. Following the scrum Mr Spencer said that he saw one of the Casino players come "*out of the scrum and hit [Grant] somewhere above the shoulders*".[33] Mr Spencer formed the view that this may have resulted from Grant "*mouthing off*"[34] and frustrating one of the Casino players. Mr Spencer said that he called out to one of the touch judges that the behaviour he observed should not be allowed, but play nonetheless continued.

In a second statement to police in October 2019 Mr Spencer described the contact during the tackle he observed as being "*between the shoulder and the chin*"[35], and not seeing any contact to Grant's head. Mr Spencer went on to describe a scrum following the Casino kick at a goal after the Try during which Grant received the ball from the scrum and was tackled after he passed the ball. Mr Spencer described this tackle as being "*again a little late and around the shoulder area*"[36], but with no contact to Grant's head. Mr Spencer said that following this he observed "*a scuffle and a bit of pushing of one another between Grant and another Casino player*" which "*finished pretty quickly*".[37]

In evidence, Mr Spencer explained that the initial incident that he described to police during his record of interview was not a reference to either the Kick or Tackle, but rather to an incident that occurred earlier in the game. Mr Spencer also explained that the altercation involving Grant and a Casino player which he described to police was not the Scuffle, but rather a separate incident that occurred following the Try and a subsequent kick-off. When asked about the incident relating to the scrum which he described Mr Spencer indicated that it occurred about three minutes before halftime and that he was about 40 to 50 metres away from the incident. Mr Spencer described the incident involving "*a hit, hit about the shoulders*" and that "*it was just a scuffle and [a Casino player] just, he sort of hit [Grant] with his, with his forearm so he just slips off the shoulder and probably to the chin or something, to the chin area*".[38] Later in his evidence, Mr Spencer was asked about this incident again and said, "*I really can't recall too much about it…All I know is [Grant] got hit again*"[39], which resulted in Grant going down to his knees and Mr Spencer running onto the field to Grant with some water.

[31] Exhibit 1, page 114.
[32] Exhibit 1, Tab 25A at [10].
[33] Exhibit 1, Tab 25A at [11].
[34] Exhibit 1, Tab 25A at [11].
[35] Exhibit 5 at [22].
[36] Exhibit 5 at [25].
[37] Exhibit 5 at [25].
[38] 29/4/19, T74.15-30.
[39] 29/4/19, T77.11.

When asked about the tackle he observed, Mr Spencer said that Grant was hit simultaneously at the time he kicked the ball, and was hit by the arm of a Casino player "*just above, just about the shoulder level, just above the shoulder level. It could have been a high tackle*".[40] Mr Spencer said that Grant "went *straight to the ground*"[41] after this tackle. Mr Spencer ran out onto the field to give Grant some water and to see if he was all right, and Grant confirmed that he was. Mr Spencer said that he did not see a scuffle following the tackle. In evidence, Mr Spencer was also shown part of the game footage and was able to identify Grant rubbing his head. However, Mr Spencer indicated that he had no recollection of seeing this on 11 September 2016.

(f) Kent Browne was the strapper for Murwillumbah, and had been involved with the club since 2010. Mr Browne was on the reserves bench on the western side of the ground towards the southern end. He did not see the Kick, Tackle or Scuffle. In evidence, Mr Browne confirmed that he could not recall any occasion during the game where he saw Grant take any hit to the head.[42] Rather, Mr Browne's attention was drawn to the fact that there had been a loud reaction from the crowd. Mr Browne subsequently saw Mr Spencer assisting Grant to leave the field and approach the reserves bench. Mr Browne noted that Grant appeared to be a bit dazed and groggy, and that Mr Spencer asked him to take care of Grant. Mr Browne said that he sat Grant down on the chair next to him, put water on his head, tapped him on the knee and asked if he was all right. Although Grant said that he was alright, Mr Browne noted that he did not look well. A short time later Mr Browne felt Grant grab him, turned and saw that Grant had an unusual smile on his face, and then collapse to the ground.

(g) Barry Gorton was the Ground Manager at the game whose duties involved maintaining control of the ground and ensuring compliance with relevant CRL guidelines. Mr Gorton was near the southern end of the ground, dealing with a spectator, when he received a radio message from the ground announcer that Grant was "*having some sort of a fit*" with a request for an ambulance to be called.[43] Mr Gorton did not see the Kick, Tackle or Scuffle.

(h) Brian Rix was the President of the NRRRL, and was present at the game, watching it from the sideline. Although Mr Rix watched the entire game he did not see the Tackle or Scuffle, or any incident involving Grant. Mr Rix only became aware of a possible incident when he saw Grant "*staggering a bit*"[44] when he was leaving the field shortly before halftime.

Analysis of factual evidence

7.6 It is evident from the summary above that no witness who observed the sequence of events involving the Kick, Tackle and Scuffle saw any contact between Grant's head and another player. Of the officiating crew, Mr O'Connor appears to have had the best view of the Tackle and Scuffle and did not observe any interpersonal contact head injury. Certainly, following discussions amongst themselves, the officiating crew as a whole did not consider that any aspect of this

[40] 29/4/19, T76.2-14.
[41] 29/4/19, T76.34.
[42] 30/4/19, T47.43.
[43] Exhibit 1, Tab 24 at [8].
[44] Exhibit 1, Tab 22 at [13].

sequence of events which may have demonstrated illegal play precluded a try being awarded to Casino.

7.7 Of the Murwillumbah trainers, it is evident that Mr Browne did not see the Kick, Tackle or Scuffle at all. His attention was only drawn to this sequence of events after the fact. It is clear that the recorded interview, statements and oral evidence of Mr Spencer are materially inconsistent with the evidence of other witnesses. This observation is in no way a criticism of Mr Spencer. Rather, it was plain during the course of his oral evidence that Mr Spencer was doing his best to recall an event some three years earlier. Mr Spencer himself acknowledged that he had difficulties with his recollection of the events of 11 September 2016.[45] Further, it should also be remembered that Mr Spencer was both a club mate and friend of Grant's, and having to participate in a record of interview with police a matter of hours after seeing Grant in distress on the field was no doubt a traumatic experience.

7.8 Although it is not entirely clear, it appears that the tackle described by Mr Spencer in his record of interview and April 2019 statement was a reference to the Tackle observed by other witnesses, even though Mr Spencer described what he observed as having occurred at an earlier point in the game. Even if this interpretation of Mr Spencer's evidence is incorrect, it is still the case that on Mr Spencer's version he did not observe any interpersonal contact head injury (as opposed to a contact injury that might have occurred by some other mechanism). Mr Spencer's account of what he saw only goes so far as to describe the tackle of Grant as being late.

7.9 It is also clear that no other witness apart from Mr Spencer recalls seeing any incident or scuffle involving Grant at around the time of the First Scrum. Mr Spencer's description of this sequence of events is inconsistent with the game video. On Mr Spencer's version, Casino won possession of the ball following the scrum and Grant immediately went to the ground after being "*hit*" by a Casino player. In contrast, the game video shows Murwillumbah with possession of the ball after the scrum, and that Grant played on for at least up to two minutes following the scrum. On this basis, Mr Spencer's recollection cannot be accepted in view of the inconsistencies with the independent video evidence, and the evidence of the other witnesses.

7.10 However, it should be noted that even according to Mr Spencer the incident that he observed, which he said occurred after a scrum, involved contact between the arm of a Casino player and the area around Grant's shoulders. In his April 2019 statement Mr Spencer described this contact as being somewhere above Grant's shoulders, whilst in his October 2019 statement Mr Spencer described the contact as being between Grant's shoulders and his chin. In evidence, Mr Spencer described the forearm of a Casino player slipping off Grant's shoulders and probably making contact with Grant's chin area. Even accepting the slight discrepancies between Mr Spencer's descriptions of this contact, it is evident that Mr Spencer did not, on his version of events, see any contact between a Casino player and Grant's head.

[45] 29/4/19, T71-77.

Expert medical evidence

7.11 As noted above, in the autopsy report Professor Olumbe considered that the underlying cause of Grant's hypoxic brain injury could either have been due to a cardiac arrest triggered by blunt chest trauma and/or coronary atherosclerosis identified at autopsy, and exacerbated by acute blood loss from the thoracostomy. Each of the medical experts instructed as part of the coronial investigation was asked to consider this issue.

(a) Associate Professor Adams opined that "*the most likely cause of [Grant's] initial distress on the field was due to direct brain injury sustained during the football game rather than due to effects of cardiac trauma such as commotio cordis*[46]*, myocardial contusion*[47] *or coronary artery occlusion, all of which are recognised causes of death due to blunt force trauma to the chest*".[48] Associate Professor Adams based his opinion primarily on the fact that a cardiac cause for Grant's initial distress and later collapse would have either left abnormal findings at autopsy or have caused immediate cardiac arrest. However, Associate Professor Adams explained that at the time of collapse, and for some time after, it was noted that Grant had a good cardiac output, which would be the first thing to be lost in a cardiac cause of such a collapse.

(b) Professor Brown similarly opined that if a primary cardiac event had occurred this would have caused immediate collapse (as a result of cardiac arrest from the underlying arrhythmia) and evidence of a cardiac cause (such as coronary thrombosis or dissection) would have been demonstrated at autopsy. Instead, Professor Brown also expressed the view that the most likely cause of Grant's distress and subsequent collapse "*was the result of a significant blow to his head*".[49]

(c) Professor Besser expressed the view that there is no clinical or pathological evidence for a primary cardiac cause for Grant's death. Instead, Professor Besser expressed the view that "*there is no doubt [Grant] suffered a significant traumatic brain injury during the football game*" which was "*severe enough to cause obvious, serious concussive symptomatology followed by a grand mal seizure. The whole scenario is very suggestive of a second impact syndrome which occurred during the game after [the Tackle]*".[50] Professor Besser went on to explain that the contact from the Tackle caused Grant's head to go back in a "*whiplash fashion*" with Grant presumably falling to the ground backwards.[51] Professor Besser went on to express the view that Grant "*may have also struck the back of his head on falling and these injuries are associated with rotational, shearing forces known to have adverse effects on the brain*".[52] Professor Besser considered that the sequence of events involving the Kick and Tackle "*is consistent with a mild traumatic brain injury and typical concussion symptoms would account for [Grant's] initial behaviour*".[53]

[46] Blunt trauma to the chest resulting in irregular heart rhythm and often leading to death.
[47] Bruising of the heart muscle that can occur with bodily injury.
[48] Exhibit 1, page 641.1.
[49] Exhibit 1, page 641.82.
[50] Exhibit 1, page 641.109.
[51] Exhibit 1, page 641.108.
[52] Exhibit 1, page 641.108.
[53] Exhibit 1, page 641.108.

In evidence Professor Besser confirmed that the type of whiplash injury that Grant suffered would not necessarily be the result of a direct impact to the head. Professor Besser was asked whether the likely injury was one caused by an arm and possible shoulder impacting with Grant's neck region and then him falling to the ground. Professor Besser explained: "*Yeah, I, I'm more concerned with the fact that he went off his feet and fell to the ground whilst unbalanced. I think that's more relevant than just being hit on the chin or the neck. I don't see that as a serious problem*".[54] Professor Besser compared this mechanism with a so-called "one punch attack": "*…it's not the actual initial hit, it's the falling to the ground from head height and then striking the head on a solid object with a sudden deceleration of the brain*".[55]

7.12 **Conclusions:** The available medical evidence sufficiently excludes the possibility that Grant's initial distress and subsequent collapse was attributable to a cardiac cause. Rather, the available medical evidence establishes that this sequence of events was attributable to a traumatic brain injury sustained whilst Grant was on the field. The question that arises is whether the mechanism giving rise to this traumatic injury was the result of any interpersonal contact from the Tackle or Scuffle, or the result of some other mechanism.

7.13 As explained above, the eyewitness evidence does not establish any contact head injury that might have been occasioned as a result of interpersonal contact. The highest the evidence goes in this regard arises from Mr Spencer's evidence of seeing an arm of an opposing player come into contact with Grant's shoulder area which may have resulted in some consequent contact with Grant's chin. However, to the extent that Mr Spencer's evidence is significantly inconsistent with the evidence of other witnesses as already described above, it is difficult to place much weight on this version of events. However, even if Mr Spencer's version could be accepted it does not give raise the possibility of there having been any interpersonal contact injury involving Grant's head.

7.14 Rather, it appears that as a consequence of the Tackle Grant became unbalanced and fell backwards with his head impacting the ground. Although this is not captured on the game video, it appears to be the most likely sequence of events given the description provided by most witnesses regarding the Tackle and the resulting Scuffle. This is also consistent with the opinion expressed by each of the expert medical witnesses, in particular Professor Besser. Therefore it is most likely that the mechanism precipitating Grant's initial distress on the field and subsequent collapse can be attributed to his head impacting with the ground after falling whilst unbalanced as a consequence of the Tackle.

[54] 17/10/19, T8.40.
[55] 17/10/19, T8.46.

8. What was the response provided by the trainers from Country Rugby League following the potentially high tackle on Grant, his subsequent distress on the field, his leaving the field, and his subsequent collapse, and was this response adequate?

8.1 In his record of interview with police and in his April 2019 statement Mr Spencer made no mention of performing any assessment of Grant in relation to the detection and management of any possible head injury. However, in his October 2019 statement Mr Spencer for the first time described an assessment that he performed of Grant on the field. Again it should be remembered that Mr Spencer's evidence in this regard was in relation to what he described as the incident involving a tackle of Grant that occurred sometime earlier in the match before the Tackle observed by other witnesses.

8.2 Mr Spencer said that after seeing Grant go to the ground and running onto the field he told Grant to stay down and "*take it easy*" in the hope of drawing a penalty.[56] Mr Spencer then explained that after asking Grant if he was okay, and being told by Grant to leave him alone, Mr Spencer then commenced his usual assessment for any player who may have been injured, starting with the head down. He explained: "*I looked for any sign of injury to his head and body and I made the usual enquiries and observations that I would make in the circumstances. Grant's eyes looked okay, he knew where he was, knew what the score was and knew what had happened. He did not have any obvious injuries and his speech was normal. He sat up, he was talking and his balance and orientation seem normal*".[57] In evidence, Mr Spencer explained that the type of on field assessment described in his October 2019 statement involved asking some simple questions such as asking a player how they are feeling and to repeat some words, and probably squeezing their hand to see if they had even strength on the sides of their body.[58]

8.3 In evidence, Mr Spencer confirmed that what he described in his October 2019 statement to police was an assumption of what he did, based on his usual practice, as opposed to a recollection of what actually occurred.[59] Later in evidence, Mr Spencer was asked to physically highlight the relevant portions of his October 2019 statement which related to his actual recollection of events, as opposed to those portions which were based on assumption. Examination of that highlighting reveals that Mr Spencer's actual recollection, so far as any assessment is concerned, was limited to telling Grant to stay down, and that Grant appeared to be okay (and that, indeed, Grant was protesting to be left alone).

8.4 For clarity, it should also be noted that Mr Spencer explained that when he ran onto the field following the incident after the scrum that he described, he again asked if Grant was alright, and Grant responded that he was, and told Mr Spencer to leave him alone. Mr Spencer went on to explain that he did not perform any head injury assessment at this time because he held no concerns about a possible head injury on the basis that he did not see any contact with Grant's head. Mr Spencer indicated that if he had seen such contact he would have performed a head

[56] Exhibit 5 at [22].
[57] Exhibit 5 at [23].
[58] 16/10/19, T6.37.
[59] 16/10/19, T6.31.

injury assessment. Mr Spencer explained: "*Cause I, I didn't know what was wrong - he was all right. He was sort of all right. He just looked a bit dazed and he just said he was right*".[60]

8.5 Mr Spencer said that after assisting Grant to leave the field he passed Grant over to Mr Browne who was on the Murwillumbah bench. Mr Spencer told Mr Browne that Grant was not feeling well and asked him to keep an eye on Grant. Mr Browne in turn asked Grant if he was alright, and Grant said that he was, even though he appeared unwell to Mr Browne. A short time later, Grant grabbed Mr Browne before collapsing onto the ground.

8.6 **Conclusions:** On Mr Spencer's own evidence, any on field assessment of Grant was limited to instructing Grant to stay down on the basis that he appeared to be okay. Although it seems apparent from his October 2019 statement that Mr Spencer was aware (at least in October 2019) of the kind of adequate assessment that would be required in order to identify any potential head injury in a player, it is evident that such an assessment was not performed on 11 September 2016. It is equally evident that no assessment was performed after Grant left the field and that any enquiry as to the reason for Grant leaving the field was limited to a cursory enquiry by Mr Browne as to whether Grant was feeling alright.

8.7 The significance of no adequate head injury assessment being performed is perhaps minimised to some extent by the fact that Grant obviously did not return to the field after leaving. Further, it is also evident that only a relatively short timeframe was involved (a) in Grant being assisted from the field by Mr Spencer; and (b) between Grant being seated on the Murwillumbah bench and his subsequent collapse. Having regard to these matters, and to evidence discussed further below which identifies the absence of any relevant CRL policy concerning the detection and management of head injuries in players, no adverse comment is made in regarding the conduct of the Murwillumbah trainers in response to Grant's distress before and after leaving the field.

[60] 16/10/19, T8.31.

9. What policies were applicable to the Northern Rivers Regional Rugby League competition on 11 September 2016 in relation to the detection and management of head injuries, the provision of first aid, the availability of medical equipment and medically trained personnel, and were these policies adequate?

Policy considerations relevant in 2016

9.1 In order to understand the nature of any policies or guidelines relevant to consideration of this issue, it is first necessary to understand the structure of rugby league governance that applied as at September 2016. At this time:

(a) the NRRRL was a member of the CRL;

(b) CRL in turn was a member of NSWRL;

(c) NSWRL was a member of the Australian Rugby League Commission Limited (**ARLC**), which is the governing body for rugby league in Australia; and

(d) the ARLC in turn was the sole member of National Rugby League Limited (**NRL**), which conducts the elite NRL Telstra Premiership rugby league competition.

9.2 The effect of the above is that in 2016 there were effectively two governing bodies for rugby league in New South Wales:

(a) NSWRL, which was responsible for metropolitan areas; and

(b) CRL, which was responsible for all other areas.

9.3 In 2019 there were approximately 62,000 registered participants who participated in "*rugby league matches played under the auspices of the CRL, in premierships and competitions organised by the CRL and also by its members, including NRRRL*".[61] As part of the coronial investigation, clarification was sought from CRL as to what policies and guidelines relevant to the management and detection of head injuries in players were in force as at 11 September 2016. Robert Lowrie, the Operations Manager for CRL, provided a statement in April 2019 in which he stated that, to the best of his knowledge and understanding, the following policies (having been adopted from the NRL) were all in force at the relevant time:

(a) the *NRL On-Field Policy from 1 January 2015*, dated January 2015;

(b) *Head Injury Guidelines, Head Injuries Policy Statement* (undated) (**the Head Injury Guidelines**); and

(c) *National Rugby League Policy – Return to Play* (undated).

[61] Exhibit 1, page 901.

9.4 The Head Injury Guidelines relevantly provided:

(a) *Any head injury that results in signs or symptoms of brain trauma (no matter how minor) must be treated as serious until proven otherwise*;

(b) *Great care is needed in the initial management, especially if any degree of concussion or decreased level of consciousness is evident*;

(c) *Under no circumstances should the player be allowed to continue playing or return to play during the game. This will eliminate any potential 'second hit syndrome';*

(d) *The initial assessment and management must be carried out by the accredited NRL sports trainer in attendance at the game venue, following the protocols of the NRL Sports Trainers Scheme*".[62]

9.5 In his April 2019 statement Mr Lowrie explained that "*it is the practice and the policy of the CRL to adopt the policies, relating to the detection and treatment of head injuries sustained in the course of playing rugby league, which are decided on and promulgated by ARL (and NRL) in its capacity as the Australian national governing body for the sport of rugby league. The CRL does not have the required expertise or resources to conduct its own research into the detection and management of head injuries in rugby league, and it instead relies on the determinations made by the national governing body, and given the ARL's relative resources which you can apply to these important matters*".[63] Mr Lowrie indicated that, accordingly, CRL had an expectation that its member groups and organisations, including NRRRL, would adopt, implement and adhere to the rules, regulations and policies of CRL, including those mentioned above. Mr Lowrie went on to explain that CRL had an expectation that a trainer would have taken specific steps in accordance with the above-mentioned policies in accordance with specific training that the trainer would have received in the course of obtaining accreditation from the ARLC in order to perform the functions of a trainer.

9.6 Between April and October 2019 the Crown Solicitor's Office sought clarification from CRL as to whether the Head Injury Guidelines were adopted by CRL and/or NRRRL as at 11 September 2016. In response to this enquiry Mr Lowrie prepared a subsequent statement in October 2019 in which he explained that he had reviewed the following material in order to answer this question:

(a) the bible of the CRL rules, regulations, policies and guidelines which were formally adopted by CRL by a 2015 resolution of its Board of Directors;

(b) the records and minutes of board meetings of the CRL Board of Directors since 2015;

(c) available records of CRL;

(d) the results of searches conducted within the www.playnrl.com and www.playrugbyleague.com websites; and

[62] Exhibit 1, page 1065.
[63] Exhibit 1, page 908.

(e) a Google search for the Head Injuries Guidelines.

9.7 As a result of these enquiries Mr Lowrie indicated that he could find no information or evidence which showed that:

(a) the ARLC or NRL formally provided the Head Injury Guidelines (or any version of it) to CRL;

(b) the ARLC or NRL required or requested CRL to adopt the Head Injury Guidelines (or any version of it); or

(c) the NRRRL adopted the Head Injury Guidelines (or any version of it);

prior to 11 September 2016.[64]

9.8 In oral evidence Mr Lowrie confirmed that as at October 2019 he could find no evidence of the Head Injuries Guideline having been adopted by CRL, and therefore in force, as at September 2016. In this regard, Mr Lowrie was asked whether CRL had an expectation that trainers in NRRRL games would nevertheless follow the provisions of the Head Injuries Guidelines. Mr Lowrie indicated: "*I would expect they would follow what the training says they got [sic] to follow, and if that's part of what the training was, then they would have to follow it*".[65] Mr Lowrie went on to explain that if the Head Injuries Guidelines did not form part of the training undertaken by trainers, he would not expect a trainer to follow the document in September 2016.

9.9 All of the above resulted in this exchange between Counsel Assisting and Mr Lowrie:[66]

Q: To your knowledge at the moment, and I apologise if I've asked you this, but at the moment does the CRL have any policy concerning head injuries?
A: The policies that the CRL have would be those policies that have been adopted by [sic] the NRL. We don't have any separate policies, no.

Q: So is the answer to my question, yes, no or I don't know? Does the CRL –
A: The CRL has no specific policies of its own.

Q: Has it got any policy of the NRL to do with head injuries that it has adopted?
A: I don't know offhand, I'd have to check that. I'm not sure.

9.10 Eventually, after taking an opportunity to review relevant material, Mr Lowrie advised that whilst the CRL did not have a specific policy, it relied on the ARLC and training that it provides to sports trainers. In this regard, Mr Lowrie referred to the *Sports Medicine for Sports Trainers*, a 2019 document authored by Sports Medicine Australia, and the *NRL Sport Trainers Accreditation Scheme, Level 1 Manual* (**the Accreditation Manual**), a document given to trainers in 2016.

[64] Exhibit 7.
[65] 16/10/19, T29.19.
[66] 16/10/19, T37.17-27.

9.11 Relevantly, the Accreditation Manual contains a unit dealing with head injuries. It provides that "*any head injury that is sustained by a player must be treated as serious until proven otherwise by a doctor. Great care is needed in the initial assessment and management, especially, any degree of concussion*".[67] The Accreditation Manual goes on to list the causes of head injuries, symptoms of a brain injury and signs of a brain injury. Under a heading titled, *Guidelines for the assessment of players on game day*, the Accreditation Manual provides: "*Most players are keen to return to the field of play as soon as possible. They are usually reluctant to admit symptoms to the medical staff - especially in front of players, coaches and spectators. Ideally, they should be assessed away from the sideline, but this may not always be possible*".[68] The Accreditation Manual then goes on to list suggested questions for trainers to ask players (for example, where are you? what day is it today?) and suggested skills to assess (such as walking, sprinting, sidestepping). The Accreditation Manual then provides: "*If you are not happy clearing the player, then don't. If you are unsure about it, keep the player off the field for a further 5-10 minutes and seek another opinion if required. If you're still unsure, then don't give the clearance. Ultimate responsibility for clearing any player for play following head injury on game day belongs to the most senior medical staff member on-site*".[69] Notwithstanding all of the above, Mr Lowrie acknowledged that the Accreditation Manual was not a policy document but, rather, a collection of training modules relevant to the accreditation of sports trainers.

9.12 Mr Lowrie confirmed that after originally being asked in February 2019 whether the CRL had undertaken any developments to improve the detection and management of head injuries, by October 2019 this issue had not been progressed. Mr Lowrie explained that the CRL was not responsible for such developments, which were carried out by the ARLC and NRL.[70] Mr Lowrie again sought to explain that during his 14 year tenure as the CRL Operations Manager it was his experience that CRL would only adopt NRL policies.

9.13 **Conclusions:** The effect of Mr Lowrie's evidence was that as at September 2016 CRL had no policy or guideline in place in relation to the detection and management of head injuries in players, apart from the NRL On-Field Policy from 1 January 2015 which had been sent to its members for adoption. However, the NRL On-Field Policy only for accredited sports trainers being the only persons able to administer first aid or offer advice to an injured/ill player.

9.14 As to the absence of any other CRL policy (of its own, or adopted from the NRL or the ARLC), Mr Lowrie's evidence is that CRL lacked the resources to conduct its own research, and consequently develop its own policies, in relation to this issue. Further, it is clear from Mr Lowrie's evidence that CRL had a practice of adopting policies promulgated by the ARLC and NRL. However, despite this practice, Mr Lowrie could find no evidence of CRL having followed this practice in relation to the Head Injury Guidelines, or any other relevant ARLC and/NRL policy or guideline in relation to the detection and management of head injuries in players as at September 2016. This is despite there being around 62,000 players from about 500 clubs playing in approximately 2,500 games per week under the auspices of CRL.

[67] Exhibit 7, page 434.
[68] Exhibit 7, page 442.
[69] Exhibit 7, page 443.
[70] 16/10/19, T52.8.

9.15 Instead of a robust policy and/or guideline it appears that the only practice adopted by CRL in relation to managing and detecting head injuries in players playing in the CRL games was to effectively rely on training provided to sports trainers as part of the NRL Accreditation Scheme. On behalf of CRL it was submitted that CRL did not regulate the accreditation of sports trainers, nor provide sports trainers for any rugby league games played in NSW. That submission is accepted. However, it is unclear from the available evidence whether in September 2016 CRL had an expectation that the Head Injuries Guidelines would be followed by sports trainers, even if it had been adopted by CRL. Instead, the effect of Mr Lowrie's evidence was that CRL expected trainers to act in accordance with training provided to them under the NRL Accreditation Scheme, even to the extent where such training may have been inconsistent with the Head Injuries Guidelines. Whilst it is acknowledged that the Accreditation Manual provided to trainers relevant information in relation to the detection and management of head injuries in players, it comprised a series of training modules and could not be seen as a substitute for a documented policy or guideline. In the absence of any such documented policy or guideline in 2016, the question of adequacy in relation to any policy or guideline becomes a moot point.

Policy considerations after 2016

9.16 During the course of the inquest there was a major change to the governance of rugby league in New South Wales. CRL was placed into external administration and games which were previously played under the auspices of CRL were transferred to the NSWRL. This had the effect of transferring the approximately 62,000 players previously under the auspices of CRL over to NSWRL resulting in a total of approximately 100,000 players playing under the auspices of NSWRL. As a result of the merger NSWRL merged together the existing policies of CRL and NSWRL in order to produce the 2020 New South Wales Community Rugby League Policies and Procedures Manual (**the 2020 Manual**).

9.17 Barrie-Jon Mather, the General Manager Football at NSWRL Limited, indicated that at the time of the merger he was not aware whether CRL had any policies in place in relation to the detection and management of head injuries. However, Mr Mather explained that the head injury policy contained in the 2020 Manual was based on both the relevant NRL policy and the previous NSWRL policy, and had been developed under the advice of the New South Wales Chief Medical Officer.

9.18 Section 4.17 of the 2020 Manual deals with match day head injury assessment and return to play procedures. It requires mandatory compliance from clubs participating in the NSWRL community competitions and imposes sanctions for clubs that fail to comply with the policies and procedures. Specifically it provides for the role of a head sports trainer in relation to concussion on field assessment procedures. Relevantly, it also provides that "*any player with a suspected concussion should immediately be removed from the field of play by the Head Sports Trainer/First Responder*"[71] and if certain signs are present after a direct or indirect blow to the head the player must not return to the match. The signs relevantly include if the player exhibits balance or motor coordination problems, is disoriented or confused, or has a dazed, blank or vacant look on their face.[72]

[71] Exhibit 18, page 111.
[72] Exhibit 18, page 111.

9.19 In evidence Mr Mather confirmed that it is the responsibility of a sports trainer, rather than a referee or coach, to identify a potential head injury in a player.[73] However, Mr Mather was asked whether referees and coaches were provided with training in relation to the mechanisms by which a head injury could occur. Mr Mather explained, "*Previously not but in as part of the education process that we've identified for promoting this, is this should - the changes in the concussion and head injury policy and the signs of a head injury should be part of the process for ground managers, referees, and coaches as well*".[74]

9.20 Mr Mather acknowledged that coaches and referees are not provided with any training in relation to identifying other mechanisms of head injury such as the second impact syndrome described by Professor Besser. However, Mr Mather agreed that there was potentially a role for NSWRL to provide education to referees and coaches about such mechanisms in order to alert trainers to the potential need to investigate such matters further. Mr Mather agreed, "*Yes, definitely there's scope for that, I've done it myself at a junior rugby game previously so, yes, we're happy for them to do that and we can definitely educate them on that*".[75]

9.21 Mr Mather also recognised the challenges involved in educating players from a young age, and their parents, of the potential ramifications of head injuries. To this extent, Mr Mather explained, "*that's one of the reasons why we placed all the documents and the education tools on the website, it's very difficult for us to educate 100,000 people on an individual basis but all the documents are there and we can steer them into the right place, put together right information to make some good decisions on their own health and whether they play again*".[76] However, when asked what this steering involved, Mr Mather acknowledged, "*I think the answer is we're probably not doing a good job of steering the people to it, I can't think of any specific programs or information that we distribute other than we sent an [electronic digital message] out to every one of our participants*".[77] When asked whether the electronic communication targeted specific areas which might be informative to recipients Mr Mather acknowledged, "*in terms of a targeted education program for the 100,000 participants, no, we haven't got that at the minute, but it's something we can definitely look at doing, if that's a recommendation*".[78]

9.22 Mr Mather also acknowledged that players are sometimes reluctant to take advice and sometimes offer resistance to a suggestion that they should stop playing and/or leave the field of play if a head injury is suspected. Mr Mather was asked about any steps taken by NSWRL to embed in the community rugby league organisation the importance of recognising and properly managing head injuries. Mr Mather explained, "*Head injuries, yeah, it's been a big issue for the game as a whole over the last couple of years, I think the messaging from the NRL has really started to trickle down around recognising when you have got that head injury. We're just really reinforcing that message, that it's not okay to carry on, it's okay to come off and you know, because in certain cases you're toughing it out and head injuries you can't really tough it out, so were trying to reinforce that, I*

[73] 24/6/20, T19.39.
[74] 24/6/20, T20.2.
[75] 24/6/20, T20.39.
[76] 24/6/20, T21.10.
[77] 24/6/20, T24.47.
[78] 24/6/20, T25.21.

can't tell you of any specific initiatives, it's just more of a general, these are the steps that you need to take and need to realise it's your health at the end of the day".[79]

9.23 It is evident that NSWRL has, in the 2020 Manual, a documented policy in relation to the detection and management of head injuries. This is a welcome improvement given the obviously large number of players, previously playing under the auspices of CRL, that now fall within the auspices of NSWRL. However, what the circumstances of Grant's case demonstrate is that, firstly, the initial resistance shown by Grant to leaving the field is not an uncommon reaction, even in circumstances where a player has possibly sustained a head injury; and secondly, that there is a need to educate both officials (such as coaches, referees and ground staff) as well as parents and players as to the mechanisms by which head injuries may be sustained by players.

9.24 It was submitted on behalf of NSWRL that it conducts an annual review of education material made available to its participants. It was further submitted that the available evidence does not appear to support a conclusion that its participants are unaware that they should not continue to play if they have symptoms of concussion. However, the available evidence indicates not only did Grant show symptoms which were consistent with concussion (for example, appearing to be dazed, holding his head, remaining behind the play) but that the symptoms were not recognised by Grant himself or by the Murwillumbah trainers. Further, so far as Mr Spencer is concerned, he was of the view that a formal assessment was not required because he did not observe any contact between a Casino player and Grant's head. Clearly, this indicates a lack of understanding as to the mechanisms by which a head injury can be occasioned, other than by direct interpersonal contact.

9.25 NSWRL also submits that providing education to coaching staff, refereeing staff, ground managers, parents and players as to these other mechanisms will potentially involve these persons, with no medical training, imparting information to a trainer who already has a number of significant obligations and responsibilities during a game. NSWRL further submits that:

(a) this has the potential of overloading a trainer with information to the extent that it may detrimentally affect the trainer's ability to carry out their existing functions; and

(b) this creates an appreciable risk in relation to a scenario where a trainer is conducting an on-field assessment of a player *not* displaying symptoms of potential concussion, resulting in the trainer being unable to personally observe whether other players on the field might be displaying such symptoms.

9.26 Professor Besser's views are relevant in this regard. He observed: "*[Grant's] death from an accidental traumatic brain injury is a rare event on the sporting field considering its relatively uncommon occurrence in body contact sports. Nevertheless head injuries are the most common direct athletic cause of death. Tissue is particularly susceptible to injury from shearing stresses, which are most likely to occur when rotational forces are applied to the head. The second impact syndrome is a major concern in adult athletes and this may have been a factor in [Grant's] injury*".[80]

[79] 24/6/20, T21.48.
[80] Exhibit 1, page 641.111.

9.27 **Conclusions:** The available evidence indicates that significant improvements have been made since 2016 in relation to the detection and management of head injuries in rugby league players, particularly those playing in regional competitions. There is now an adequately documented policy in relation to such matters, reinforced by sanctions for non-compliance by member clubs. Further, in July 2020, following the conclusion of oral evidence in the inquest, NSWRL created a concussion hub on its website that centralised concussion documents and policies for access by NSWRL participants (who were notified electronically of this) and the public. Such remedial action is a welcome improvement.

9.28 However, further evidence gathered during the course of the inquest has highlighted particular matters in Grant's case that bear upon the overall effectiveness of such policies. In particular, the events of 11 September 2016 draw specific attention to the importance of recognising the various mechanisms by which head injuries may occur, and the importance of detecting such injuries.

9.29 As Mr Mather recognised, there is an opportunity for further improvement and education of persons other than trainers. By the same token, it is acknowledged that it is the trainers who hold the primary responsibility in relation to detecting and managing head injuries, and that their responsibility in this regard should not be compromised. It would seem that one way to appropriately address the need for education, but to not detract from the functions and responsibilities of trainers, is to give consideration to such education with appropriate advice from medical experts. Indeed, this was acknowledged in the submissions advanced on behalf of NSWRL. Therefore, it is desirable to make the following recommendations.

9.30 **Recommendation 1:** I recommend to the Chief Executive, New South Wales Rugby League Limited (**NSWRL**) that, in consultation with appropriate medical experts, consideration be given to the development and dissemination of appropriate education and training programs for NSWRL participants which emphasise the importance of detecting head injuries, and the types of mechanisms by which head injuries may be occasioned, including the risks of second impact syndrome. Such education and training programs should be appropriately modified depending on the age and playing experience of the participants to whom such programs are targeted.

9.31 **Recommendation 2:** I recommend to the Chief Executive, New South Wales Rugby League Limited (**NSWRL**) that, in consultation with appropriate medical experts, consideration be given to the development and dissemination of appropriate education and training programs for NSWRL coaching staff, refereeing staff, ground staff, participants and parents of participants in relation to the types of mechanisms by which head injuries may be occasioned, and how observations of potential head injuries may be appropriately communicated to sports trainers in order to determine whether an assessment of a player is warranted, whilst at the same time ensuring that this communication does not adversely impact upon functions and responsibilities of such trainers.

10. What assistance and first aid was provided to Grant prior to the arrival of NSW Ambulance officers, and was it adequate?

10.1 Following Grant's collapse Dr Stephenson saw that Grant went stiff and then exhibited tonic-clonic convulsions. After Grant was placed in the recovery position by the Murwillumbah trainers Dr Stephenson effectively took over Grant's care. Dr Stephenson said that he was intent on making sure that Grant's airway was patent as Grant continued to convulse through clenched teeth, with saliva coming out of his mouth and nose.

10.2 Dr Stephenson said that from his experience he had an expectation that Grant's tonic-clonic convulsions would last for a number of minutes before ceasing, and that Grant would then enter a post-ictal state. However, this did not occur. Instead, Grant's condition deteriorated as Dr Stephenson recognised that Grant had snoring-type breathing (which Dr Stephenson recognised as representing an obstructed airway) and that he was showing signs of cyanosis. Dr Stephenson attempted to maintain a patent airway by performing a chin lift and neck extension.

10.3 Once it became apparent that Grant was in cardiac arrest he was placed onto his back and CPR was commenced. Dr Stephenson indicated that he performed expired air resuscitation (mouth-to-mouth)[81] whilst the trainers and other persons at the scene took turns in providing cycles of external cardiac massage. As CPR continued Dr Stephenson observed that Grant began vomiting, requiring the need for the CPR to be interrupted so that vomitus could be cleared from Grant's airway.[82] Dr Stephenson explained that he could not recall precisely for what length of time expired air resuscitation was provided nor at what time it ceased but that he was "*trying to maintain some degree of resemblance to, to the resuscitation guidelines*".[83]

10.4 Professor Brown explained that it was important to maintain Grant's airway in order to avoid any hypoxia developing, which leads to cyanosis within minutes of an inadequate airway and respirations. In order to avoid hypoxia Grant's airway needed to be maintained from the time that he collapsed and was put in the recovery position. Basic life support should have been instituted that could have included an oropharyngeal Guedell airway or a nasopharyngeal airway, and a bag mask device, if such equipment had been available at the scene.

10.5 Professor Brown noted that whilst "*a bag mask device may well have been life-saving providing there was not an unsurmountable amount of vomitus in the airway that was aspirated*"[84], the use of such a device ideally requires two people, both of whom need to be properly trained in its technique. Professor Brown observed: "*Having a bag mask on the sideline would only have helped if there were people fully trained in its use. It cannot be picked up and used by untrained laypeople (or untrained medical staff)*".[85] Associate Professor Adams expressed a similar view when he observed, "*I do not think the bag and mask would necessarily have helped as it appears there was a real problem in securing [Grant's] airway, this would not have been solved with a bag and mask*".[86]

[81] 30/4/19, T23.45.
[82] 30/4/19, T32.3.
[83] 30/4/19, T32.29.
[84] Exhibit 1, page 641.84.
[85] Exhibit 1, page 641.84.
[86] Exhibit 1, page 641.4.

10.6 **Conclusions:** It appears that following Grant's collapse and convulsions Dr Stephenson had a reasonable expectation that Grant would return to a post-ictal state with an adequate level of consciousness. During this initial period Grant was appropriately placed in the recovery position and efforts were made to ensure that his airway was patent. Once it became evident that Grant's condition had deteriorated and that he was in cardiac arrest, appropriate steps were undertaken to provide basic life support in the form of bystander CPR. Dr Stephenson readily acknowledged that the need for expired air resuscitation and external cardiac massage was interrupted by the need to clear vomitus from Grant's mouth in order to maintain an unobstructed airway.

10.7 Although there was no specialist life support equipment available at the scene, such as a bag mask device, the expert evidence established that such equipment would only have been helpful if the persons present were trained in its use and if Grant's airway was secure. As neither of these features were present, it could not be said that the absence of such equipment adversely affected the care that was being provided to Grant. Overall, the available evidence indicates that appropriate care was provided to Grant in the circumstances, prior to the arrival of NSWA paramedics.

11. Factual matters relevant to the nature and adequacy of the response by NSW Ambulance

11.1 In order to consider the remaining issues examined by the inquest it is first necessary to understand a number of factual matters relevant to the nature and adequacy of the response by NSWA.

11.2 Following the request from the ground announcer to call Triple Zero Mr Gorton ran across the field in order to reach Grant as quickly as possible. Having previously made calls to Triple Zero arising from past incidents at games, Mr Gorton was aware that he would be required to provide Grant's personal details and the nature of his condition to the NSWA call taker. After arriving at the scene and quickly determining what had occurred Mr Gorton made a call to Triple Zero. This occurred at **3:32:32pm**.

11.3 Mr Gorton's call was answered by Control Centre Communications Assistant (**CCCA**) Linda Griffiths. Dr Stephenson spoke to Ms Griffiths during the initial portion of the call, identifying himself as a doctor and informing Ms Griffiths, "*We have an unconscious patient who's fitting*".[87] Ms Griffiths obtained from Dr Stephenson the address of the Oval and then requested Mr Gorton's phone number. Dr Stephenson handed the phone back to Mr Gorton so that this number could be provided. After Mr Gorton repeated the name of the Oval Ms Griffiths elicited information from Mr Gorton that Grant was a rugby player, that he was still on the field, and that he was 28 years old.

11.4 The following exchange then took place:

Ms Griffiths: Okay is he breathing?
Mr Gorton: Yes he is.
Ms Griffiths: Okay, is his breathing ability normal?
Mr Gorton: More of a snort or a snore than anything. Just a minute, I'll put the doctor back on for you.
Ms Griffiths: No that's alright sir, that's all right, I can, just let the doctor –
Dr Stephenson: Listen, he's unconscious, and [inaudible] breathing… Just send an ambulance over okay.
Ms Griffiths: Yeah I'm organising an ambulance doctor for you…
Dr Stephenson: Good, thank you very much.
Ms Griffiths: …we will be there as soon as we can.
Dr Stephenson: Okay, urgently if you don't mind, thank you.
Ms Griffiths: Thank you doctor.

11.5 The call was then terminated although the circumstances of termination are not clear.

11.6 Following the call the incident was entered into the pending incident queue at 3:35:05pm. The incident was assigned Despatch Code 12B01 (meaning a priority 1C response) with the following information entered into the Incident Detail Report (**IDR**): "*You are responding to a patient who has had a fit. The patient is a 28-year-old male, who is unconscious and breathing. Effective breathing not verified < 35. Convulsions/fitting. Caller statement: UNCONSC PT FITTING. 1. This is apparently*

[87] Exhibit 1, Tab 48, page 1.

a generalised (grand mal) fit. 2. It is not known if he has had more than one fit in a row. 3. It is not known if he is diabetic. 4. It is not known if he is an epileptic or had fits before. 5. It's not known if the twitching has stopped (impossible to check)".[88] At 3:35:19pm the following entry was entered into the IDR: "DR. ON SCENE – NON COMPLIANT".[89]

11.7 Pursuant to the NSWA Emergency Response Grid 2013 a response code of 1A and 1C are both categorised as a Priority 1 Response with warning devices (lights and sirens) to be operated. Pursuant to Response Guidelines a 1C response requires the most timely ambulance response, whereas a 1A response requires the closest and most timely approved ambulance response with the highest clinical skill available.

11.8 Control Centre Officer Nicole Pagac was allocated the incident. At that time there was no ambulance crew available in Murwillumbah as that crew was at the time at Fingal Head and involved in a patient transfer from Murwillumbah Hospital. The nearest road ambulance crew at that time was a Tweed Heads Car 4591 which consisted of Paramedics Mark Knight and Toni Taylor. At that time Car 4591 was at Tweed Heads District Hospital, also completing a patient transfer. After unloading their patient, Car 4591 accepted the job at 3:37:07pm and commenced travelling to Murwillumbah.

11.9 At 3:38:13pm the following entry was entered into the IDR: "SNORING BREATHING".[90]

11.10 At 3:45pm a further Triple Zero call was made to CCCA Lucy Johnson. The unidentified caller again provided the address for the Oval and advised that CPR had just been commenced by Dr Stephenson on scene, and those assisting him. After being told by the caller that Grant had started fitting the following exchange then took place:

Ms Johnson: Okay, so was he playing sport? Or did something happen, did he hit his head…
Caller: Yes, he was playing sport and hit his head, yes.
Ms Johnson: Okay. What did he hit his head on?
Caller: An opposition players, arm, limb.

11.11 As a result of the information that Grant was in cardiac arrest and that CPR had been commenced the IDR was updated at 3:46pm to record this information and that the despatch code had been changed to 9D01 (meaning a priority 1A response). Further, the IDR was updated to record "*You are responding to a patient in apparent cardiac (respiratory) arrest. The patient is a 28-year-old male, who is unconscious and not breathing. INEFFECTIVE BREATHING*".[91]

11.12 At 3:46pm due to the upgrade in priority from 1C to 1A, a second ambulance crew in Car 4591, consisting of Intensive Care Paramedic Michael Smith and Paramedic Nathan Reid, were assigned to the job. Ms Pagac subsequently advised Car 4594 that they would now be backing up Car 4591.

[88] Exhibit 1, page 177.
[89] Exhibit 1, page 177.
[90] Exhibit 1, page 177.
[91] Exhibit 1, page 177.

11.13 At 3:48:01pm the IDR was updated with the following entry: "PT WAS PLAYING SPORT HIT HEAD ON OPPOSITION PLAYED [SIC] FELL HAD SEIZURE NOW UNCONSCIOUS NOT BREATHING DR PERFORMING CPR".[92]

11.14 At 3:48:08pm a further call to Triple Zero was made by an unidentified caller. During the call the call taker advised that Grant was "*deteriorating real quick*"[93] and that an ambulance was urgently required.

11.15 Vanessa Cockburn was the Acting Duty Control Centre Officer (**DCCO**) who was overseeing the rural despatch boards for the Upper Hunter, Mid North Coast and Northern Rivers zones. After becoming aware that the incident priority had been upgraded to 1A, Ms Cockburn sought and obtained approval from the Senior Control Centre Officer (**SCCO**) John McKenzie to initiate "a ring around" in order to locate any off duty intensive care paramedics in close proximity to the Oval who might be able to provide assistance. Ms Cockburn subsequently rang a number of off duty paramedics in the Murwillumbah area and eventually spoke to Intensive Care Paramedic Greg Golds at 3:48pm and requested that he attend the scene.

11.16 Geoff Cook made a call to Triple Zero himself at 3:49:06pm, again advising that the situation was critical. After being informed that an ambulance was expected to arrive on scene in about 10 minutes, Geoff distressingly said, "*No that's not good, I don't think he's going to live that long. They need to get here faster*".[94]

11.17 At around 3:52pm, Mr Reid contacted the Northern Control Centre to enquire whether the Rapid Launch Trauma Coordinator (**RLTC**) was aware of the job, due to the involvement of a possible traumatic cardiac arrest, and if an aeromedical response in the form of an aeromedical team and helicopter was being despatched. Car 4591 was advised that whilst the RLTC was aware of the case a helicopter was not being despatched and that Grant would need to be transferred via road ambulance.

11.18 At 3:52pm, Ms Cockburn spoke to RLTC Rachel Samios. The following exchange took place:

Ms Cockburn: Ah darl, Murwillumbah? I know it's probably easier just to load him and go to hospital…
Ms Samios: … from Murwillumbah yeah…
Ms Cockburn: yeah, CPR's in progress, 28-year-old…
Ms Samios: …output back there…
Ms Cockburn: … Yeah it's probably best to even, just scoop and run, even to Murwillumbah to get him stabilised…
Ms Samios: I don't think we can get there within 15 minutes.
Ms Cockburn: Yep, okay perfect, alright thanks darl…bye bye.

11.19 Rolan Murcott was a critical care helicopter paramedic station at Lismore Rescue helicopter base. As at September 2016 Mr Murcott had approximately 25 years experience as a paramedic, including

[92] Exhibit 1, page 177.
[93] Exhibit 1, Tab 48, page 6.
[94] Exhibit 1, Tab 48, page 9.

20 years experience working on medical rescue helicopters. On 11 September 2016 Mr Murcott was rostered on with emergency physician Dr Simon Jones as the medical team for the day shift at the Lismore helicopter base. Together, they were allocated to "Life Saver 4" which is the only helicopter available at the Lismore helicopter base for the purposes of emergency medical response. During the course of their shift Dr Jones was monitoring the computer aided despatch (**CAD**) system at the base. The CAD captures jobs as they are entered into ProQA (an software system used to despatch appropriate ambulance resources to medical emergencies) by a despatch officer and whilst the formatting of information is different the content visible on the CAD is the same as in the IDR. Whilst monitoring the CAD both Dr Jones and Mr Murcott observed the updated information at 3:46pm (indicating that Grant was in cardiac arrest and had ineffective breathing), at 3:48pm (that Grant had a head impact and was unconscious and not breathing), and at 3:49pm (that Grant had allegedly been elbowed in the head).

11.20 After viewing information on the CAD, Mr Murcott called the RLTC at 3:52pm and spoke to RLTC Maria Urban. Mr Murcott informed Ms Urban that he had been "*just listening to the cars, the Northern cars, they're going to a cardiac arrest, trauma arrest at Murwillumbah football field*". The following exchange then took place:

Mr Murcott: …and they are heading, they are responding from Tweed to Murbah which is quite a ways letter have a local car. Do you wanna have a look at that? Or?
Ms Urban: Nah, it's already 20 minutes old that job.
Mr Murcott: Is it?
Ms Urban: It's a Code 2, 20 minutes old, that's not good.
Mr Murcott: Umm…so it's 20 minutes old, yeah. Have they got a car on scene? No?
Ms Urban: Nup.
Mr Murcott: …yeah…
Ms Urban: But, but, that'll be Code 4.[95]
Mr Murcott: We'll have to see.
Ms Urban: Hmm.
Mr Murcott: Righto, no worries.

11.21 Following this call, Mr Murcott continued to monitor the CAD with Dr Jones whilst listening in to radio transmissions relating to the job. One transmission occurred at 3:53pm when Mr Reid called and spoke to Ms Cockburn. Mr Reid asked, "*Do you know if the RLTC are looking at this, given the nature of umm…the hit to the head, head injury?*". Ms Cockburn replied, "*Ah, thank you, it's going to have to be by road, RLTC **is** not providing a helicopter*".

11.22 Car 4591 arrived on the scene at 3:57pm, with Car 4594 arriving a short time later at 4:01pm. Mr Golds also arrived at about the same time. On arrival Mr Knight observed that compressions were being performed well, with good depth and rhythm and that Dr Stephenson was holding Grant's head in a chin lift position to keep his airway open. Dr Stevenson provided a brief history to the arriving paramedics.

[95] Code 4 indicates that a patient is deceased.

11.23 On examination Grant was found to be unconscious, very cyanosed, with no pulse, no respirations and with fixed and dilated pupils. The NSWA Electronic Medical Record notes: "*O/A PT receiving ineffective CPR > cyanosed > vomitus airway, nil resp only compressions. Local GP on scene. O/E unconscious, nil pulse, nil resps, fixed dilated pupils*".[96]

11.24 Paramedics Knight and Taylor commenced the traumatic cardiac arrest algorithm which consists of defibrillation, advanced airway management, intravenous access and drug therapy. CPR was ceased briefly in order to apply a defibrillator pads to ascertain whether there was any cardiac rhythm. Only pulseless electrical activity (**PEA**) was detected. As Grant was cyanosed he was turned on his side to clear his airway, with vomit and fluid cleared from his mouth. Grant was then turned onto his back and paramedic Taylor inserted a laryngeal mask airway. Meanwhile, Mr Knight inserted a 20-gauge cannula for intravenous access. At around this time Paramedics Smith, Reid and Golds arrived on the scene at the same time.

11.25 As the senior intensive care paramedic on duty Mr Smith took over management of Grant's airway from Dr Stephenson whilst Mr Knight commenced drug therapy involving the intravenous administration of adrenaline. Mr Smith began planning steps to transfer from the laryngeal mask to an endotracheal tube which was being prepared by Ms Taylor.

11.26 Mr Smith formed the view that Grant had suffered a traumatic cardiac arrest (as opposed to a medical arrest) and so the traumatic cardiac arrest algorithm involved the insertion of bilateral chest cannula for chest decompression. Accordingly, Mr Smith asked Mr Golds to insert the chest cannula.

11.27 At 4:11pm, Mr Murcott observed on the CAD the following: "RLTC WAS NOTIFIED 17 MINS INTO CASE ADVISED PT TO BE LOADED AND TRANSPORTED R1 TO CLOSEST HOSPITAL". Mr Murcott was aware that the closest hospitals to the incident were Murwillumbah District Hospital and The Tweed Hospital. However, Mr Murcott formed the view that Grant needed to be transferred to the closest major trauma service which was Gold Coast University Hospital. As a result, at 4:13pm Mr Murcott called Mr McKenzie. During the call Mr Murcott expressed frustration to Mr McKenzie as to not being despatched to the job, and indicated that the road ambulance crew should bypass the Tweed Hospital and instead transfer Grant to Gold Coast University Hospital.

11.28 At 4:14pm return of spontaneous circulation was achieved. Grant was subsequently loaded into an ambulance which then departed for Gold Coast University Hospital.

11.29 Whilst en route Mr Smith made a request at 4:19pm for Dr Jones to contact the road crew seeking advice in relation to Grant treatment's following the thoracostomy. At 4:23pm Dr Jones spoke to Mr Smith and provided advice in relation to clamping and securing the chest cannula with arterial forceps.

[96] Exhibit 1, page 151.

12. Was the designation of 1C appropriate for Grant at the time of the initial Triple Zero call?

12.1 According to *NSWA Call Taking – Emergency Call Taking Procedure CT 2.01* (**Procedure CT 2.01**) the call taker of a Triple Zero call is initially required to identify the location of an incident, the number a caller is calling from, and a contact number for the address of the incident. Following this, the call taker is to launch ProQA and proceed with a number of Entry Questions. The call taker is then to select the most appropriate ProQA Chief Complaint Protocol and proceed with a number of Key Questions.[97]

12.2 The Emergency Medical Despatch (**EMD**) Protocol Entry Questions are as follows:

1. *Ambulance, what's the exact address of the emergency?*
2. *What's the phone number you're calling from?*
3. *Okay, tell me exactly what happened.*
4. *How old is s/he?*
5. *Is s/he awake?*
6. *Is s/he breathing?*

Entry Questions

12.3 Anthony Gately is the Assistant Commissioner of NSWA and the Director, Control Centres. He explained the role of a call taker in this way: "The *call taker is trained to ascertain the chief complaint by use of the case entry questions. These questions were designed, in part, to identify a sign, symptom or mechanism of injury that can be categorised within one of the 33 Chief complaint protocols in [Medical Priority Despatch System]. If a patient is suffering a fit from an unknown mechanism, then the appropriate protocol to follow is [Protocol 12]. What is most important is to ascertain the patient's level of consciousness and breathing status. These have significant bearing on priority determination, regardless of the mechanism of injury and protocol chosen*".[98]

12.4 It is not in issue that the call taker Ms Griffiths did not ask Entry Question 3. Ms Griffiths confirmed this in evidence and explained that it was not asked on the basis that Dr Stephenson had already told her that Grant was unconscious and fitting. Ms Griffiths explained that the purpose of asking Entry Question 3 was to obtain sufficient information to identify which ProQA Protocol to follow so that the job could be queued as quickly as possible. On this basis, Ms Griffiths said that she already had sufficient information to trigger Protocol 12 (used for fitting/convulsions) based on what Dr Stephenson had told her. However, Ms Griffiths agreed that the information conveyed by Dr Stephenson provided no assistance in determining what precipitated Grant's fitting.[99]

12.5 Assistant Commissioner Gately agreed that Ms Griffiths did not follow the ProQA script by asking all of the Entry Questions. He acknowledged that in asking questions like Entry Question 3 it is hoped that a call taker may be able to elicit relevant information such as whether a patient has sustained possible head trauma. It is also the case that if such information is elicited then it can be included

[97] Exhibit 1, page 261.
[98] Exhibit 12 at [45], [46].
[99] 2/5/19, T37.49.

in the IDR. In Grant's case this could have occurred at the time of the first call to Triple Zero at 3:32pm.

Snoring breathing

12.6 It is clear that Ms Griffiths asked Entry Question 6 and received a positive response. Ms Griffiths followed up by asking whether Grant's breathing was completely normal. To that question she was informed that his breathing was "*more of a snort or a snore than anything*". As already noted above, the significance of Grant's breathing being described in this way is that, from a clinical perspective, it represented an obstructed airway. Ms Griffiths is not a clinician, and so an issue arises as to whether this description of Grant's breathing warranted further interrogation. Ms Griffiths explained that when she was told of the snoring breathing, she did not consider whether this indicated that Grant's breathing was effective or ineffective, despite this being a consideration under Entry Question 6. Additionally, Ms Griffiths said she could not recall why she did not use what is known as the breathing detector tool after being told about the snoring breathing. However, later in evidence, after accepting that snoring breathing is not entirely normal breathing, Ms Griffiths sought to explain that she did not use the breathing detector tool because there was a doctor on scene monitoring Grant who was more clinically trained than she was.

12.7 The EMD Protocol identifies a number of categories of ineffective breathing including, relevantly, whether a patient is "*making funny noises*".[100] In evidence assistant Commissioner Gately agreed that if a caller was to refer to a patient's breathing as "*more of a snort or a snore*" a call taker could consider this to be the same as "*making funny noises*".[101] Assistant Commissioner Gately went on to acknowledge that the answer given of "*more of a snort or a snore*" suggested that Grant's breathing was not completely normal.[102]

12.8 Assistant Commissioner Gately explained that if a caller answered "*more of a snort or a snore*" to the question, "*Is his breathing completely normal?*", the call taker could have used a breathing detector tool (although this is not mandated), and the call taker would be aware that "*noise in breathing is not normal breathing and that provides information for them to enter into the system*".[103]

12.9 Mr McKenzie said that if the call taker was provided information that suggested that a patient's breathing was not normal he would expect that the breathing detector tool would be utilised. In evidence Mr McKenzie explained that this is a computer activated system which uses input from the call taker as to a patient's breathing pattern to determine whether that breathing is effective or ineffective.

12.10 Ms Griffiths also confirmed that at the time of the incident there was a trained paramedic shift supervisor with clinical training with whom questions could be raised. Ms Griffiths also confirmed that if she was concerned or confused by what snoring breathing meant she would have raised this with the SCCO, but she had no recollection of doing so at the time.

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[100] Exhibit 2.
[101] 10/10/19, T20.33.
[102] 17/10/19, T20.50.
[103] 17/10/19, T21.5.

Key Questions

12.11 Protocol 12 relevantly sets out a number of Key Questions directed towards whether a patient has had more than one fit in a row, whether a patient is diabetic, whether a patient is an epileptic or has ever had a fit before, whether a patient's twitching has stopped, whether a patient is breathing at the time of the call, and whether a patient is completely alert at the time of the call. Ms Griffiths accepted that she did not ask any of the Key Questions. She explained that she did not do so because Dr Stephenson had made a request for an ambulance and that she "*respected his wishes and professionalism so I organised an ambulance for him and I put, 'Unknown', to the questions*".[104] Notwithstanding, Ms Griffiths accepted that if the questions had been asked she may have learned more information as to what precipitated the fit. Ms Griffiths agreed that she is trained to guide callers to the questions on the ProQA script and that it was part of her role to elicit answers to those questions. Ms Griffiths eventually agreed that her description of "*doctor on scene – noncompliant*" (meaning that Dr Stephenson had declined to answer any questions) was incorrect.[105]

12.12 In evidence Ms Griffiths had difficulty accepting that by not asking any of the Key Questions the despatcher, whose responsibility it was to assign an appropriate NSWA resource to the job, had insufficient information as to what precipitated the event. Rather, Ms Griffiths considered that she had provided appropriate information into the notes and comments of the IDR to allow a despatcher to despatch an appropriate resource.

12.13 Later in evidence Ms Griffiths explained that an answer of unknown to the question of whether breathing was effective or ineffective would have still resulted in a 1C response being coded. In contrast, if effective breathing had been inputted it would have resulted in a lower priority 2I response.[106] However, it still was the case that if ineffective breathing had been verified this would have been information available to the despatcher so that they could consider the appropriate resources to be despatched.

12.14 Assistant Commissioner Gately also acknowledged that there was an expectation that each of the Key Questions would be asked, unless the information was obvious or had been provided spontaneously by the caller. In Grant's case, apart from the fact that Grant was unconscious (obviating the need to ask question 6 as to whether he was alert) the answers to the remaining five questions were not obvious. Assistant Commissioner Gately also confirmed that NSWA expected the questions to be asked rather than recording "*unknown*" in answer to each question. Assistant Commissioner Gately agreed that eliciting information about whether or not Grant had experienced head trauma was critical information to obtain as early as possible in order for the most appropriate resource to be despatched.

12.15 As the breathing detector tool could not be utilised with a person who was fitting, Mr McKenzie explained that his expectation would be for the call taker to remain on the call until the fit had stopped so that a breathing assessment could be done. Similarly, Mr McKenzie said that he expected that for a patient who was unconscious and fitting, the call taker would remain on the

[104] 2/5/19, T36.40.
[105] 2/5/19, T39.32.
[106] 2/5/19, T46.26.

line with the caller until the patient began to wake up. Mr McKenzie said that he had an expectation that the Key Questions would be asked by a call taker and that the answers to such questions that have been of assistance in determining the appropriate response to the patient.[107]

Staying on the call

12.16 As noted above, the circumstances in which the initial Triple Zero call to Ms Griffiths was terminated is unclear on the available evidence. Protocol 12 instructs a call taker to "*stay on the line with caller until the patient starts to wake up*".[108] Ms Griffiths said that she could not recall why she did not ask Dr Stephenson (or whoever she was speaking to) to stay on the line until Grant started to wake up, even though it would be normal practice to ask that a caller stay on the line until an unconscious patient starts to wake up.[109]

12.17 *Work Instruction Call Taking - Disconnected or Non-Responsive Triple Zero Calls CT 2.09* (**CT 2.09**) directed Call Takers in managing calls where, relevantly, "*the call is disconnected for any reason during the Call Taking process*".[110] Assistant Commissioner Gately confirmed that if a call concerning an unconscious fitting patient was prematurely disconnected, for whatever reason, there was no expectation in September 2016 that the call taker would call back. Assistant Commissioner Gately explained that this is because at that time CT 2.09 did not require a call taker to return call if sufficient information had been ascertained in order to queue a job. However, Assistant Commissioner Gately acknowledged that the CT 2.09 contained no express instructions that the ProQA requirement for the call taker to remain on the call until the patient starts to wake up did not apply.[111]

12.18 Assistant Commissioner Gately went on to express the view that he did not think that it was unreasonable for Ms Griffiths not to attempt to re-establish the call as there was a doctor at the scene with Grant, and again because sufficient information had been provided by the caller for the job to go into a queue and for the ambulance response to be initiated. Assistant Commissioner Gately also explained that in a dynamic workplace there may be reasonable reasons why such a call back would not be made, for example if there were many queued calls for the call taker to address.

12.19 Notwithstanding, an updated version of CT 2.09 was issued in December 2018 (and which is the current version) which provides that, "*If the call is disconnected, you should immediately send the incident to the pending incident queue and callback the contact number obtained verbally or per the CLI data to re-establish the call…Continue attempting to contact the caller until instructed by the Supervisor to cease*".[112]

[107] 1/5/19, T82.26.
[108] Exhibit 2.
[109] 2/5/19, T43.26-29.
[110] Exhibit 12.
[111] 17/10/19, T25.13.
[112] Exhibit 12.

Despatch of resources

12.20 In evidence Ms Pagac agreed that when despatching resources she did not only look at the priority response which had been coded, such as a 1A or 1C, but also at all of the information provided by the call taker in the IDR. In this way, Ms Pagac acknowledged that more information provided greater assistance in determining the appropriate resource to be despatched.[113] However, Ms Pagac explained that most of the Entry Questions and Key Questions which were not asked by Ms Griffiths would not have assisted her in determining the most appropriate resource to despatch. Rather, the only question and answer relevant to the issue of despatch was whether in Grant's case there was information provided as to a suspected head injury.[114] Ms Pagac agreed that if she had information that Grant had ongoing unconsciousness and had sustained a head injury, this would have been raised with the DCCO (who would in turn contact the RLTC) as to whether an aeromedical resource should be despatched.

12.21 Ms Pagac went on to explain that information purely about Grant's breathing being "*more of a snort or snore*" would not have assisted her. This is because, Ms Pagac explained, most patients post seizure will have some level of consciousness and a compromised airway. However Ms Pagac agreed that if more information had been elicited about the snoring breathing actually being ineffective breathing that this would have been of assistance in relation to the question of which appropriate resource to despatch.

12.22 **Conclusions:** It was submitted on behalf of NSWA that the purpose of the Entry Questions is to obtain sufficient information to select the correct protocol to be followed. NSWA also submits that it would be concerning if a CCCA delayed initiating such a protocol to allow a call maker "*to provide free-flowing description of the precise details of an incident, which* ***could not*** *have made any difference to the choice of protocol that had to be actioned in a fitting patient* (original emphasis)".[115] In this regard it is accepted that based on the answers to the questions asked by Ms Griffiths, the correct protocol was selected so that the incident could be placed in a queue for an appropriate NSWA to be despatched. Therefore, the view could be taken that the designation of a 1C response was appropriate, when looking only at the answers given to the questions which Ms Griffiths actually asked.

12.23 However, the more pertinent issue is not whether the response by Ms Griffiths to the answers given to her was adequate, but rather whether sufficient questions were asked in order to elicit adequate information. This requires consideration of the questions which Ms Griffiths did not ask, but ought to have, rather than the questions which she actually asked. In other words, if Ms Griffiths had asked Entry Question 3, or further interrogated the description of Grant's breathing as being "*more of a snort or a snore*", or asked all of the Key Questions is it likely that relevant information would have been elicited that might have either altered the response priority and/or the correct protocol to be applied. It is clear that any question asked which elicited information indicating that there was a traumatic cause for Grant's convulsions and arrest or that his breathing was ineffective would have been of critical importance in determining the priority response and the appropriate NSWA resource to be despatched.

[113] 2/5/19, T51.28.
[114] 2/5/19, T52.37.
[115] Submissions of behalf of NSWA at [25].

12.24 It is of course not possible to definitively conclude, one way or the other, whether asking Entry Question 3 or any of the Key Questions would have elicited the possibility of Grant's convulsions being due to a possible traumatic cause, as opposed to a medical cause. However, given the fact that many of the people who were providing care to Grant at the time of the initial Triple Zero call had also witnessed the circumstances leading up to Grant leaving the field and subsequently collapsing, it is likely that such information would have been conveyed. This is supported by the fact that such information was provided during the subsequent Triple Zero call about 13 minutes later at 3:45pm.

12.25 Even if this were not the case, the evidence establishes that the description of Grant's breathing as being "*more of a snort or a snore*" either amounted to ineffective breathing according to the EMD Protocol or, at least, warranted further interrogation. This interrogation could have taken the form of either further questions being asked of the caller, utilisation of the breathing detector tool, or the seeking of appropriate clinical advice. Regrettably, none of these available options were utilised. It is clear from the evidence of Ms Pagac that any information as to a possible traumatic cause for Grant's convulsions and the fact that his breathing was ineffective was critical in determining the appropriate ambulance resource to despatch.

12.26 It is acknowledged that as in 2016 there was no requirement for Ms Griffiths to call back following the unknown circumstances in which the call was terminated. However, whilst CT 2.09 did not mandate a call back by a call taker is unclear as to how the provisions of CT 2.09 operate given the instructions contained in Protocol 12 for a call taker to stay on the line until a convulsing patient starts to wake up. It is noted that this is not a matter which arose directly on the available evidence. In any event, it is clear that the updated version of CT 2.09 requires a call taker to attempt to call back if a call is disconnected.

13. Was the care provided by NSW Ambulance from the time that the paramedics arrived on the scene at 15:57, to the time that Grant reached Gold Coast University Hospital at approximately 17:01 appropriate?

13.1 Professor Brown was not critical of the overall standard of care delivered by the attending NSWA paramedic crews, noting that (a) appropriate initial management was provided to Grant, who was demonstrating PEA; and (b) the care provided eventually resulted in return of spontaneous circulation being achieved. In this regard, Professor Brown considered that the PEA was appropriately managed by external cardiac massage, repeat doses of adrenaline and intravenous fluid.

13.2 Further, Professor Brown considered that the laryngeal mask was used early on and, because it seemed to be functioning well, the performance of the endotracheal intubation was not considered time or situation critical. Professor Brown therefore considered that intubation was done at a timely moment, following assessment of the situation and whilst the laryngeal airway was providing adequate ventilation and other life-saving manoeuvres were being performed.

13.3 Professor Brown ultimately opined, "*I also do not believe that intubating earlier would have made any difference at all to the outcome, as by now [Grant] had already suffered significant cerebral hypoxia that led to his unsurvivable hypoxic brain injury*".[116] In this regard, Professor Brown considered that the laryngeal mask "*needed to be delivered by an ambulance within minutes of [Grant's] collapse*" and that "*twenty-five minutes later would not have led to any useful result as the hypoxia would have been profound and irreversible by that stage*".[117]

13.4 **Conclusions:** Having regard to the available expert medical evidence, the care and treatment provided to Grant by the attending NSWA paramedics in response to Grant's cardiac arrest was appropriate. The eventual return of spontaneous circulation supports this conclusion. There is no evidence to suggest that intubation was not performed at an appropriate time or that earlier intubation would have materially affected the eventual outcome.

13.5 Apart from the care and treatment provided by NSWA paramedics at the scene to Grant's overall presentation, further consideration needs to be given to the specific thoracostomy procedure. Mr Smith said that based on information that he was provided that Grant had possibly been hit in the chest, he considered that there might be a tension pneumothorax. Mr Smith said that although he could not recall seeing any outward signs or symptoms of a tension pneumothorax (such as subcutaneous emphysema and unequal chest rise), he nonetheless asked Mr Golds to decompress the chest based on literature supporting chest decompression as being an early reversible cause of traumatic cardiac arrest. Mr Smith explained that he was doing everything to give Grant every chance of survival.

13.6 Mr Smith and Mr Golds quickly discussed reversible causes of cardiac arrest and identified a potential chest injury resulting in a tension pneumothorax. Mr Golds explained in evidence that even if there had been an indication of a head blow, rather than a chest blow, this would not have excluded the possibility of a tension pneumothorax. This is because whilst a head blow might have

[116] Exhibit 1, page 641.86.
[117] Exhibit 1, page 641.84.

been a primary insult, Grant could have fallen as a result of the blow or a tackle and consequently sustained a chest injury.

13.7 In evidence Mr Golds identified a number of features indicative of a tension pneumothorax (subcutaneous emphysema, discolouring and mottling of the skin, decreased air entry, decrease in chest movement) but indicated that although these signs were not present this did not completely exclude the possibility of a tension pneumothorax.

13.8 Mr Golds then proceeded to find an insertion point in the second intercostal space, and made a small incision in order to insert a 12 gauge cannula. Expecting to hear the hiss of releasing air, Mr Golds was surprised to see blood instead. Mr Gold's first thought was that the cannula had encountered a pocket of blood are caused by a haemothorax. [118] Mr Smith said that after he became aware that the catheter had gone into a vascular space, he estimated that there was between 200 to 300 millilitres of blood loss. After attaching a Heimlich valve to the cannula Mr Golds performed a right thoracotomy. Following the return of spontaneous circulation there was an increase in bleeding and immediate measures were taken to apply an arterial clamp to the line.

13.9 Professor Brown noted that the attending paramedics considered that Grant had been injured in a heavy collision that raised the possibility of a blunt chest injury with pneumothorax. As a result, the traumatic cardiac arrest protocol mandated the insertion of bilateral chest cannula. Professor Brown expressed the following view: "*It is hard to be critical of a decision made in the heat of the moment, although I would have expected a tension pneumothorax to have manifested by extreme and unmissable respiratory distress prior to collapse (not staggering around, then having a seizure).*[119]

13.10 Professor Brown identified that the insertion of the cannula was too low into the fifth intercostal space rather than into the second intercostal space, in order to avoid hitting intra-pleural organs. Professor Brown explained that as the cannula was inserted too low it penetrated the left ventricle resulting in haemorrhage. Overall, whilst Professor Brown considered that this was "*an entirely avoidable error*" he observed, "*I do not believe it made any difference at all to the final outcome, as by this point there was an irreversible hypoxic brain injury*".[120]

13.11 **Conclusions:** On the information available, it was not unreasonable for Mr Smith and Mr Golds to consider the possibility of a tension pneumothorax secondary to chest trauma. Even though Grant was not displaying the typical signs of a tension pneumothorax, this did not necessarily exclude the possibility of its existence. Further it is clear that the attending paramedic crews were intent on identifying any reversible causes of Grant's cardiac arrest in order to give Grant every chance of survival.

[118] A collection of blood in the pleural cavity, the fluid-filled space that surrounds the lungs.
[119] Exhibit 1, page 641.86.
[120] Exhibit 1, page 641.87.

13.12 To this extent, no criticism can be made of the decision to proceed with insertion of bilateral chest cannula. Regrettably, it is clear that the cannula was inserted into the incorrect intercostal space. Whilst the result of this would no doubt have been extremely distressing for those at the scene, the available expert evidence indicates that this did not ultimately affect the eventual tragic outcome.

14. Was the 25 minute response time for the NSW Ambulance paramedics to arrive on the scene appropriate and in accordance with NSW Ambulance's guidelines?

The 3:52pm call between Ms Cockburn and Ms Samios

14.1 Following escalation of the job to a priority 1A Ms Cockburn received approval from the SCCO to do a "ring around" to locate an off-duty intensive care paramedic who could attend the scene. Ms Cockburn acknowledged that even though the first call to Triple Zero was made at 3:32pm and that after the initial responding ambulance was despatched at 3:37pm it would take approximately 25 minutes to arrive at the scene, she did not recall whether she gave any consideration at any earlier time to seeking approval for a ring around. In this regard, Ms Cockburn said that she could not recall the reference to snoring breathing being brought to her attention, and did not give any consideration at 3:35pm (when the call first entered the queue) to asking the RLTC for a helicopter to be despatched.

14.2 When speaking with Mr Golds at 3:48pm, Ms Cockburn did not inform him that the two ambulance crews from Tweed Heads were 10 minutes away from the scene, or that the first crew did not have an intensive care paramedic. In evidence, Ms Cockburn acknowledged that this would possibly have been useful information for Mr Golds to have.

14.3 Being aware that Grant was in arrest at least by 3:46pm Ms Cockburn called Ms Samios at 3:52pm. At the time of the call Ms Cockburn was aware that it was usual practice for a helicopter to be despatched only if it could reach a patient within 15 minutes. This awareness is derived from NSWA *Work Instruction - Health Emergency & Aeromedical Services – ACC.HELI.15 - Helicopter and Road Pre-Hospital Tasking Procedure* (**ACC.HELI.15**) which was issued in January 2016 and was in operation as at September 2016. Its purpose is to guide Aeromedical Control Centre staff in the correct procedure for the prehospital tasking of medical teams by helicopter and road. ACC.HELI.15 provides that "*a medical team pre-hospital response to a suspected traumatic cardiac arrest is indicated if the aeromedical team would likely be first on scene or the aeromedical team would arrive within 15 minutes of the first report of cardiac arrest*".[121]

14.4 Dr Gary Tall, the NSW Retrieval Clinical Manager at Aeromedical & Medical Retrieval Services within NSWA, explained that ACC.HELI.15 is based on international guidelines and research, with the most relevant guideline being the Australia and New Zealand Committee on Resuscitation (**ANZCOR**) Guideline 11.10.1 relating to management of cardiac arrest due to trauma. ANZCOR Guideline 11.10.1 provides the following: "*Prolonged (>10 minutes) CPR in traumatic cardiac arrest after reversible causes have been addressed is almost never associated with a good outcome*".[122] However, Dr Tall explained that ACC.HELI.15 "*errs on the side of caution in allowing up to 15 minutes of CPR before a medical team response is deemed unlikely to improve the outcome*".[123]

14.5 Ms Cockburn was also aware that by the time she contacted Ms Samios Grant had already been in arrest for about six minutes. Given this awareness, Ms Cockburn was asked in evidence why she did not contact the RLTC earlier. Ms Cockburn explained: "*At the time I was dealing with other cases. I*

[121] Exhibit 1, page 279.
[122] Exhibit 1, page 308.
[123] Exhibit 1, page 279.

was looking after three other times [sic] at that time and the crews that were responding with the initial 1C coding was sufficient".[124] However, Ms Cockburn agreed that whilst the assets that were despatched initially were adequate for a 1C priority case, by the time she contacted the RLTC at 3:52pm the matter was a 1A priority case.

14.6 In Ms Cockburn's initial statement she said that she contacted the RLTC "*to enquire whether they would launch for this incident*".[125] However, a fair reading of the transcript of the call between Ms Cockburn and Ms Samios does not reflect this intention. Indeed, the purpose of Ms Cockburn's call at 3:52pm is unclear having regard to the evidence given by her. Ms Cockburn variously described that "*it was my protocol to contact them on a trauma and that's what I've warned at that time*"[126], that she was "*hoping that they would task the helicopter*"[127], and that she was alerting the RLTC to the job but that "*the overarching decision is RLTC's to send a helicopter or not*".[128] Ultimately, Ms Cockburn agreed that at no point during her call with Ms Samios did she make a request for a helicopter to be despatched.[129]

14.7 There are three other matters arising from Ms Cockburn's call:

(a) Ms Cockburn agreed that when she made her reference to "*scoop and run*" during the call, she did not discuss this with any of the paramedics en route to the scene, and had no recollection of discussing this with the SCCO. However, later in evidence Ms Cockburn said it was a matter for a road transport crew where a patient would be taken, and not a matter for herself or the RLTC. It should also be noted that Ms Cockburn sought to explain that the IDR entry that she made that "*RLTC was notified 17 minutes into case, advise patient to be loaded and transported R1 to closest hospital*" was done in order "*to log it against the case that that was what was notified, to have a record of it*".[130] However, Ms Cockburn accepted that at no point during her conversation with Ms Samios was she given any instruction or advice that Grant was to be transported by road to the nearest hospital.[131]

(b) Following the query made by Mr Reid as to whether a helicopter was to be despatched, Ms Cockburn did not call the RLTC to advise them of this enquiry. It should be noted that Mr Knight said if Mr Reid did not make this enquiry it is more than likely that he (Mr Knight) would have made it himself. This is because at the time his car was still about 10 minutes away from the scene and that in his view the nature of the incident, being a head injury to a football player, meant that Gold Coast University Hospital would be the eventual destination which could be reached more quickly by helicopter than by road. It should further be noted that Mr McKenzie indicated that if he was given information that a road ambulance had enquired whether a helicopter would be despatched, he would pass this information on to the RLTC.

(c) Ms Cockburn also indicated that she did not think to notify the RLTC that CPR was being performed by a doctor (rather than a layperson) on scene, as that information would have

[124] 1/5/19, T59.49.
[125] Exhibit 1, page 214.4.
[126] 1/5/19, T60.8.
[127] 1/5/19, T61.4.
[128] 1/5/19, T63.31.
[129] 1/5/19, T63.50.
[130] 1/5/19, T66.9.
[131] 1/5/19, T67.36.

been available from the IDR. However, Ms Cockburn acknowledged that she did not actually know whether the RLTC had access to that information.

14.8 Ms Samios was asked about her discussion with Ms Cockburn and whether she understood that Ms Cockburn was requesting that a helicopter be launched. Ms Samios explained: "*No. My, my recollection of that was more she was just telling us it was there and sort of affirming that the best thing for the - would be just to treat the patient, load and go, 'cause of where it was and how long it would take us to get there*".[132] Ms Samios explained that from this discussion both she and Ms Cockburn agreed that the most appropriate care for Grant at that time was for him to be stabilised and taken to Murwillumbah Hospital, rather than for a helicopter to be launched.[133] Ms Samios appeared to agree that, as Counsel Assisting described it, her conversation with Ms Cockburn was "*entirely pointless*" on the basis that only confirmation was being sought that a helicopter was not going to be launched.[134]

14.9 Two other aspects of Ms Samios' recollection of the call are of importance:

(a) Ms Samios acknowledged that at the time of the call she was unaware how advanced the aeromedical team was in their pre-flight preparations. Notwithstanding, Ms Samios said that even if the job had been noticed by the RLTC at the time that Grant went into cardiac arrest, this would not have changed her view about whether to despatch the aeromedical team. This is because Ms Samios considered that the team would not have arrived within 15 minutes. Ms Samios was specifically asked whether she would have contacted the aeromedical crew and enquired if they were ready to depart if she had learned about the cardiac arrest at the time that it happened. Ms Samios indicated, "*No, if I felt we were going to task 'cause it felt within our protocol, then I would have just rang and tasked them. But we weren't - under our protocol, we weren't going to get there under 15 minutes*".[135]

(b) Ms Samios only became aware that Grant was in cardiac arrest six and a half minutes after the event. This is because by that time the relevant information on the IDR was not apparent. Ms Samios explained: "*By the time this job has changed to a 1A or a cardiac arrest, it's a long way down the screen. It was - most weekends are really busy. It was only the two of us watching them. We look at them initially. This wasn't a category we'd normally look at, and then it changed into something else, and by that stage it was well down the screen and out of our normal - what we'd be viewing*".[136] Ms Samios was asked whether if at 3:40pm there was information on the IDR that Grant's fit had been precipitated by a head injury it would have caused her to consider launching a helicopter. Ms Samios indicated that such a launch would have been considered, but would have depended on whether the information was noticed or if it was brought to her attention. However, Ms Samios went on to explain that it was unlikely that the information would have been noticed as it was contained in a fitting, rather than trauma, category.

[132] 2/5/19, T58.25.
[133] 2/5/19, T59.2.
[134] 2/5/19, T61.33.
[135] 2/5/19, T59.42.
[136] 2/5/19, T60.37.

14.10 NSWA Work Instruction *Supervisor - Activation of Aeromedical & Medical Retrieval Service Resources Procedure SUP 8.01* (**SUP 8.01**) directs supervisors in the process for activation of resources from the Aeromedical & Medical Retrieval Service, such as helicopters and retrieval teams. It provides that in order to activate a helicopter or retrieval response, a despatcher or ambulance officer is to "*contact the RLTC identify yourself and **request the activation of a helicopter response*** (original emphasis)". Assistant Commissioner Gately confirmed in evidence that the intent of the above words being emphasised was so that a SCCO or DCCO has to clearly and unambiguously request the activation of a helicopter.[137]

14.11 Assistant Commissioner Gately was asked whether he agreed that at no point did Ms Cockburn actually request a helicopter in an unambiguous way. Assistant Commissioner Gately agreed "*that conversation could have been more effective*"[138] and that "*it would have been better if [Ms Cockburn] had asked specifically*"[139] for a helicopter to be despatched. Assistant Commissioner Gately went on to confirm that there was effectively no point in Ms Cockburn contacting the RLTC six and a half minutes after information had been received that Grant was in cardiac arrest, having regard to the 15 minute timeframe for the despatch of aeromedical resources.

14.12 Dr Tall said that he did not interpret the conversation during the Ms Cockburn's call to the RLTC as actually requesting the RLTC to launch a helicopter. Rather, Dr Tall considered that it may have been more of a discussion than a request, noting that in certain cases the Control Centre seeks the opinion of the RLTC as to whether it would be useful to launch a helicopter. However, Dr Tall later acknowledged that even with hindsight he could not interpret the conversation as being one which was a request for a discussion.[140]

14.13 Dr Tall was asked in evidence whether he agreed that a delay of six and a half minutes following Grant's arrest before the RLTC was called was too slow. Although Dr Tall had some difficulty acknowledging that this was too slow, he eventually accepted that "*it would be ideal for the contact to be made immediately once that information was available*".[141] Dr Tall went on to explain that even if the call had been made at 3:46pm, with an expected response time of between 21 to 25 minutes, the call would have already been too late.

Remedial action taken

14.14 In June 2017 NSWA conducted a review of regional control centres in relation to the use of the "ring around" system and whether it created an artificial capacity to respond to emergencies. This system involves the contacting of off-duty officers to attend to an incident in circumstances where there may be some delay in operational resources reaching a patient, either due to remote location of the incident or unexpectedly high demand. Assistant Commissioner Gately explained that the review determined that "*the use of the ring around system or officers who are off duty does represent an artificial capacity to respond to Priority 1 incidents because there is no guarantee that off duty officers will be or would make themselves available*".[142] Assistant Commissioner Gately

[137] 17/10/19, T28.47.
[138] 17/10/19, T29.6.
[139] 17/10/19, T29.22.
[140] 2/5/19, T11.47.
[141] 2/5/19, T8.10.
[142] Exhibit 1, page 274.2.

went on to explain that the system has now been formalised to avoid any artificial capacity by developing "*a more formal process to identify off-duty resources available to attend particular incidents if required during periods of unexpected high demand or a remote incident*".[143]

14.15 Assistant Commissioner Gately indicated that as a result of this matter NSWA has made a number of changes to improve communication between its Control Centres and the Aeromedical Control Centre. These changes relevantly include:[144]

(a) scheduled monthly meetings between the managers of the control centres and the manager of the Aeromedical Control Centres to discuss operational issues and improve communication;

(b) strengthening Work Instruction SUP 8.01 by utilising the NSW Health ISBAR communication tool; and

(c) issuing an aide memoire card to paramedics for the purpose of providing a ready reckoner for dynamic risk assessments, multiple casualty incidents and a report that assists the RLTC to make its determination regarding the launch of a helicopter or medical retrieval team.

14.16 Further, as at June 2020, NSWA had reviewed its ISBAR Work Instructions and medication tools for both the Aeromedical Control Centres and control division staff, and was in the process of finalising a number of additional work instructions relating to improving communication tools generally throughout its service.[145] In evidence Dr Tall referred to these improvements and explained: "*We've already taken steps to communicate the necessity to our staff of clear and unambiguous communication. So that's in the form of clinical governance and peer review meetings where we have already tried to make clear to everyone that they need to be very explicit in what they're asking. Ask for feedback and confirmation that the desired communication has got across*".[146]

14.17 **Conclusions:** The evidence establishes that Ms Cockburn's call to Ms Samios at 3:52pm did not constitute a request for a helicopter to be despatched. This is despite the provisions of SUP 8.02 which set out in clear terms that an explicit request should have been made. This is reinforced by the evidence of Assistant Commissioner Gately regarding the need for such requests to be made unambiguously. The end result is that Ms Cockburn's call to Ms Samios was entirely lacking in any utility. Indeed, with Ms Cockburn's reference to "*just scoop and run*" (which was itself without proper foundation) any possibility of there being a meaningful request, or at least a discussion, for an aeromedical team to be despatched was eliminated.

[143] Exhibit 1, page 274.3.
[144] Exhibit 12 at [47].
[145] Exhibit 17, page 4.
[146] 24/6/20, T11.18.

14.18 However having regard to the provisions of ACC.HELI.15 it is evident that even if such an explicit request had been made, a helicopter would not have been despatched given that six and a half minutes had elapsed since the time when Grant was known to be in cardiac arrest. Instead, the likelihood of a helicopter being despatched was dependent upon identification of Grant being in cardiac arrest at the time that it occurred. The earliest opportunity for this was at least by 3:46pm, although the evidence of Ms Samios casts some doubt upon whether she would have despatched a helicopter even if the RLTC was aware of this information at the time.

14.19 It seems then that, having regard to the evidence of Ms Samios, the most critical piece of information which would have given rise to consideration of an aeromedical team being despatched was whether there was a possible traumatic cause for Grant's convulsions and subsequent collapse. However, this information was not readily available to Ms Samios for a number of reasons: it had not been entered at the time of the initial Triple Zero call, Ms Samios did not have an expectation that such information would be included with the category of a fitting patient and Ms Samios' attention was also required in relation to other jobs separate to Grant's situation. All of this only serves to reinforce what has been identified above: that is, the critical importance of all relevant information as to the possibility of trauma and ineffective breathing being elicited by a Triple Zero call taker at the earliest opportunity in order to ensure that the most appropriate ambulance resource is despatched.

14.20 It is evident that there existed in 2016 an adequate policy framework to provide for a clear request to be made to the RLTC for the activation of a helicopter response. Regrettably, this did not occur on 11 September 2016. However, since then NSWA has undertaken appropriate remedial action to establish formal processes for the dispatching of off-duty resources, such as intensive care paramedics, for priority 1A cases. Further, relevant work instructions and communication tools have been improved, or are in the final process of being implemented, so as to ensure that all information relevant to the decision of whether to launch an aeromedical resource is provided to the ultimate decision makers.

15. Should NSWA have despatched a retrieval team with the Life Saver 4 Helicopter?

Observations of Dr Jones and Mr Murcott

15.1 At around 3:30pm Dr Jones' attention was drawn to the CAD and he became aware of the evolving situation at Murwillumbah, and in particular to the reference that there was a rugby player still on the field. In evidence Dr Jones explained that "*a rugby player still on the field is never going to be a good, good thing… He may have suffered significant trauma leading to him being on the field, he may have suffered a medical event which led to him being still on the field. Either way, he needs emergency medical treatment*".[147] Based on this, Dr Jones suspected that he would be involved in the job. As a result, Dr Jones went to the operation centre and spoke to Mr Murcott and the rest of the aeromedical team to request that some flight planning be done in anticipation that the team would be assigned to the job.

15.2 Dr Jones explained that he saw the references to seizure activity in the CAD and explained that for a 28-year-old rugby player with no history of epilepsy, he expected that any seizure activity was the result of trauma from, for example a head knock, or due to a cardiac cause. In evidence, Dr Jones was asked for his interpretation of the reference to snoring breathing at 3:39pm. Dr Jones explained, "*Snoring breathing again is, is never, never a good thing. Again it means - well for the patient, that their airway is at risk and requires advanced management of his airway*".[148]

15.3 Mr Murcott expressed a similar opinion and explained that the references in the CAD to snoring breathing and Grant fitting were the main concerning features. Mr Murcott explained that "*snoring breathing or noisy breathing is obstructed breathing, particularly in an unconscious patient*" and that "*an unconscious patient with an unprotected airway that is snoring is a life-threatening emergency*".[149]

15.4 As part of mission planning, Dr Jones indicated that the team identified no difficulties with the landing site, fuel or weather. Dr Jones explained that by the time he saw on the CAD that Grant was unconscious, there was no other preparation to be done other than "*a helmet to grab really which takes no time*".[150] By 3:46pm when Dr Jones saw that CPR was being performed by the doctor at the scene, this increased the likelihood in Dr Jones' mind that the team would be despatched. This is because, according to Dr Jones, out-of-hospital cardiac arrests have a poor outcome due to bystander or no CPR being performed, and because of an absence of defibrillation equipment. Dr Jones went on to explain that the entry at 3:48pm in the CAD indicating, "*Patient was playing a sport, hit head on opposition player, fell, had seizure, now unconscious, not breathing, doctor performing CPR*" increased the likelihood of the team being despatched due to the history of trauma preceding cardiac arrest.

15.5 Mr Murcott similarly believed that the retrieval team would be tasked to the job. He explained: "*…so from my mind a player involved in a high impact sport, that is now unconscious and fitting*

[147] 1/5/19, T4.33.
[148] 1/5/19, T5.42.
[149] 1/5/19, T24.46.
[150] 1/5/19, T8.2.

and has an obstructed airway would indicate that based on mechanism I would say that this patient meets the T1 form of protocol under Ambulance guidelines for missed criteria".[151]

15.6 Dr Jones was asked whether he discussed with Mr Murcott whether a call should or should not be made to the RLTC. Dr Jones explained, "*I was heavily of the opinion that we should be - would be sent and was quite - very surprised that we weren't sent*".[152] Dr Jones said that Grant's relatively young age and the fact that he had received CPR from a doctor meant that his condition was "*survivable with the right treatment and expedient treatment*".[153] In essence Dr Jones considered this to be the "*perfect job*" for the aeromedical retrieval team for two reasons: (a) the team could offer advanced life support and interventions beyond the scope of an intensive care paramedic; and (b) the retrieval team could have arrived on scene within 20 minutes, retrieved Grant and provided him with definitive care more quickly than any road ambulance.

15.7 In evidence, Dr Jones was asked about the level of care that he could provide as opposed to an attending ambulance. Dr Jones explained that whilst intensive care paramedics are equipped to deal with a primary cardiac arrest, this type of arrest would not be expected in a fit 28-year-old on the field playing rugby. Rather, Dr Jones considered the possibility of a traumatic cardiac arrest, given that Grant "was playing and impact sport and in the cases of traumatic cardiac arrest is, is very different from a primary cardiac arrest in that the trim required really requires medical input and is out of the scope of a paramedic".154

15.8 Mr Murcott explained that he believed Grant had clearly been hit in the head, and therefore the mechanism was a head injury, and that Grant was unconscious. On this basis Mr Murcott similarly considered it to be "*a classic job for a helicopter*",[155] and made reference to his understanding that in metropolitan areas there was a dedicated helicopter (referred to as the Head Injury Retrieval Team) that was specifically used for patients who had sustained a head injury.

15.9 Dr Jones said having previously been despatched to Murwillumbah on a number of occasions he estimated that the retrieval team could have been on scene within 20 to 25 minutes. Dr Jones opined that Grant's increased chances of survival were based on information available from the CAD between 3:32pm and 3:46pm, the same information which was available to the RLTC.

15.10 Mr Murcott expressed his understanding of ACC.HELI.15 in this way: "*So, I was aware that there was a policy in place that limited the capacity or restricted the capacity to launch the helicopter had the patient been in cardiac arrest for greater than 15 minutes. However, that was a discretionary thing and we frequently were launched to cardiac arrests or drownings et cetera that were beyond 15 minutes*".[156] Mr Murcott opined that from the time of being tasked with a job the medical retrieval team could be airborne within five to six minutes, and that there was an approximate 10 minute flight time to Murwillumbah. On this basis, Mr Murcott considered that it would have been possible to reach Grant within 15 minutes of the cardiac arrest at 3:45pm.[157]

[151] 1/5/19, T25.27.
[152] 1/5/19, T10.4.
[153] 1/5/19, T10.9.
[154] 1/5/19, T9.5.
[155] 1/5/19, T29.28.
[156] 1/5/19, T27.29.
[157] 1/5/19, T28.20.

15.11 Dr Tall did not share the opinions expressed by Dr Jones and Mr Murcott regarding the likely time it would take for the aeromedical team in Lismore to reach Grant. Dr Tall considered that it would have taken up to 25 minutes for the team to reach the Oval. This calculation is based on Dr Tall's understanding of:

(a) a standard launch time of eight minutes consisting of: an initial two minute call to relay patient information, location and make a decision to launch; approximately two minutes to check weather, fuel and identify a suitable landing location; and three to four minutes to conduct a rapid safety briefing, load and start the helicopter, complete minimum safety checklists, and obtain airport clearance and lift off;

(b) a flight time of approximately 15 minutes; and

(c) allowing two minutes for the helicopter to land and for the medical crew to move safely from the helicopter to the patient.

15.12 Dr Tall acknowledged that on 11 September 2016 the aeromedical team was already aware of Grant's situation and had begun pre-flight planning so that a launch time of four, rather than eight, minutes was possible. Using the above calculations, Dr Tall considered then that it would have taken approximately 21 minutes for the aeromedical crew at Lismore to reach Grant.

15.13 Regardless of whether the overall time was 21 or 25 minutes, Dr Tall did not consider that the aeromedical crew would have been able to respond within 15 minutes even if a call had been made to the RLTC at 3:46pm when Grant was identified as being in cardiac arrest. Further, Dr Tall explained that even if the RLTC had considered self-launching at 3:35pm when the job was first queued, he did not consider that the aeromedical crew would be first on scene, noting that the first road transport arrived at 3:57pm.

Mr Murcott's call to Ms Urban

15.14 NSWA *CAD View Usage Procedure HELI.OPS.45* (**HELI.OPS.45**), which was issued in August 2014, provided that "*concerns regarding tasking, resource allocation or privatisation should be raised directly through the operational base chain-of-command.* ***Under no circumstances should direct contact be made with Control Centre or RLTC personnel*** (original emphasis)".[158]

15.15 Notwithstanding the above, Mr Murcott had previously contacted the RLTC to query whether the medical retrieval team was to be launched. Despite this, Mr Murcott said that he "*was apprehensive to even make the call in the first place*".[159] This was due to what Mr Murcott described as a "*power differential between the medical team and the RLTC*".[160] This prompted Mr Murcott to "*disguise the call as a chat to start with*".[161]

15.16 Mr Murcott explained that at the time of his call with Ms Urban he did not understand that Grant had been in cardiac arrest for 20 minutes, that is between the time of the first Triple Zero call at

[158] Exhibit 1, page 157.38.
[159] 1/5/19, T31.30.
[160] 1/5/19, T31.33.
[161] 1/5/19, T31.31.

3:32pm and his call to Ms Urban at 3:52pm. Instead, Mr Murcott said that he was relying on the RLTC to have accurate information as to what was occurring. Notwithstanding, Mr Murcott still considered that a patient who had been in cardiac arrest for 20 minutes, but was being provided with effective CPR, was still "*reasonable*".[162] It was only after the call ended that Mr Murcott realised that Grant had only been in cardiac arrest for approximately six minutes. Mr Murcott explained, "*I did contemplate ringing the RLTC back but made the assumption that nothing would have changed [with respect to whether the aeromedical team would be launched] and I would have been breaching the protocol again so I didn't make a call*".[163]

15.17 Ms Urban agreed that in her role as RLTC she was heavily reliant upon information collected by a call taker, and that she was more likely to look more closely at an incident relating to a patient with a head injury as opposed to a patient who was fitting (without any information as to whether the patient suffered from epilepsy or not). Ms Urban agreed that if there was information on the IDR which referred to a rugby player fitting and having a knock to the head, it was more likely that this would be noticed and that she would want further information, on the basis that it was a suspected a traumatic event.

15.18 In evidence Ms Urban was taken to her reference in her conversation with Mr Murcott to the fact that there was a "*Code 2*" (cardiac arrest) that was 20 minutes old. Ms Urban agreed that she had made an incorrect assumption that Grant had been in traumatic cardiac arrest for 20 minutes without reading the information contained in the IDR properly.[164] Ms Urban said that she did not ask Mr Murcott about any pre-flight preparation that had been undertaken, but agreed that such information would have been useful. Ultimately, Ms Urban said that when she spoke to Mr Murcott at 3:52pm, even if she was aware that pre-flight planning was already underway, that Grant had been in cardiac arrest for six minutes (as opposed to 20 minutes); and that Grant was being attended to by a doctor, this would not have changed any of her actions. Rather, Ms Urban said that the only information that would have altered her actions is if information as to a traumatic cause for Grant's convulsions had been elicited during the initial Triple Zero call.[165]

15.19 Dr Tall acknowledged that there are a number of considerations that bear upon the decision to launch a helicopter, and that there is a need to separate clinical input from practical considerations such as a pilot's decision as to whether it is safe to fly. On the one hand, there is a need to prevent clinical considerations from potentially overriding such practical considerations. On the other hand, there is a need to seek input from experienced clinicians watching the CAD who may be able to add overall value to the situation.

15.20 In evidence, Dr Tall noted, "*But at 1540, being 18 minutes after the first triple-0 call, the patient was still deeply unconscious and had a partially obstructed airway and there was a history of trauma, I would expect that a, a medical team despatched by helicopter would be useful*".[166] Dr Tall confirmed that this was the case even if a road crew could arrive at the scene first. This is because a patient with a major head injury would need to be transferred to the nearest major trauma centre

[162] 1/5/19, T32.36.
[163] 1/5/19, T33.21.
[164] 2/5/19, T74.22.
[165] 2/5/19, T75.7.
[166] 2/5/19, T8.31.

with neurosurgery which would have been Gold Coast University Hospital. On this basis Dr Tall considered that "*it would be useful to launch a medical team by helicopter*".[167]

Remedial action

15.21 It is evident from the above that one of the issues that arose on 11 September 2016 was the ability of clinicians such as Dr Jones and Mr Murcott being able to add valuable input to the question of whether or not an aeromedical resource ought to be despatched for a patient. It should be noted that even though Mr Murcott indicated that he was apprehensive in even making the call to Ms Urban, Dr Tall explained it was possible on 11 September 2016 for Mr Murcott and Dr Jones to raise their concerns in another way. *Helicopter Duty Supervisor Greater Sydney LOP2012.01*, issued in October 2012, provided an avenue for retrieval staff at bases to contact the greater Sydney Helicopter Duty Supervisor (**HDS**) in relation to all urgent/time critical day-to-day operational issues. Dr Tall explained that the HDS is available 24 hours per day and was able to be contacted if clinical staff at a base, such as Dr Jones and Mr Murcott wanted to relay clinical concerns or suspicions to the Aeromedical Control Centre or RLTC concerning Grant.

15.22 Notwithstanding the above, apart from the remedial action taken by NSWA that has already been referred to above, the following further action should be acknowledged:

(a) In March 2019 NSWA issued *Work Instruction - Aeromedical Operations ACC.OPS.406 Control Centre Request for 1A Response* (**ACC.OPS.406**). ACC.OPS.406 describes the procedure for identifying, assessing and processing requests from a Control Centre to respond with an aeromedical asset to a 1A priority when they are the closest NSWA response, or would clinically benefit from a medical retrieval team. It provides for, in cases of suspected cardiac arrest, consideration being given to launching a helicopter if an aeromedical team is going to be first on scene or likely to be on scene within 20 minutes of the collapse of a patient, and the patient is likely to benefit from attempted resuscitation. Dr Tall explained that "[*t]he decision has been made to adopt a more conservative period of time for medical intervention following collapse than was allowed in 2016*" on the basis that "[*w]hilst it remains the case that the chances of saving a patient at 15 minutes following a cardiorespiratory event remained very poor, given better community awareness and knowledge of CPR techniques, it was considered that the window for potential for life saving intervention should be extended beyond 15 minutes*".[168]

(b) In December 2019 NSWA introduced by way of trial a dedicated Alert Line between aeromedical operational staff at its bases and RLTC to raise clinical concerns held by operational staff arising from the non-allocation of a particular incident for a period exceeding five minutes. This trial was commenced on 23 December 2019 throughout aeromedical bases in the Southern Zone and was considered to be effective so that the trial was rolled out to the Northern Zone on 6 January 2020 the way of a formal Work Instruction. *Work Instruction – Aeromedical Operations (AO) HELI.OPS.39 – RLTC Alert Line* indicates that its purpose "*is to direct staff in the process of notifying RLTC of potential prehospital cases that meet tasking criteria and have no aeromedical asset assigned or instances in which the base has local information on an*

[167] 2/5/19, T16.32.
[168] Exhibit 1, page 317.6.

incident that is not included in CADLink".[169] It provides that once contact is made with the RLTC Alert Line and information provided, the RLTC will review the case and make a decision as to whether an aeromedical asset is to be tasked to the job. If this occurs, then normal processes are to be instituted.

Dr Tall explained that a data search revealed that between December 2019 and June 2020 there had been 13 calls made using the Alert Line, resulting in the tasking of resources on two occasions. On these two occasions the taskings were subsequently called off by paramedics on scene due to information that the respective patients were not as unwell as initially thought. Dr Tall confirmed that the feedback from RLTC regarding the Alert Line has been positive and that the time taken to answer such calls is negligible and had a minimal impact on operations. This is an important outcome given that both Dr Tall and Ms Samios in evidence expressed concerns that unauthorised communication made to the RLTC had the potential of diverting attention away from the duties and responsibilities of the RLTC. Electronic communication regarding the Alert Line was conveyed to paramedics and medical officers at helicopter bases, and is now also part of induction training. Dr Tall confirmed, "*the feedback is that the opportunity to have [input] as required is useful and is comforting to know that potentially senior and experienced [input] isn't being ignored*".[170]

15.23 **Conclusions:** Much like the other issues considered above, it is apparent that the most critical piece of potential information that was relevant to the question of whether to despatch the aeromedical team from Lismore base on 11 September 2016 was whether there was a traumatic cause for Grant's convulsions and subsequent collapse. Dr Tall's evidence established that if this information had been elicited by 3:40pm, when the first ambulance crew was still some 17 minutes away from the Oval, the aeromedical team ought to have been despatched.

15.24 There is a dispute on the evidence as to the time that it would have taken for the aeromedical team to arrive at the Oval. Dr Tall considered that, even allowing for the fact that pre-flight planning was already underway, it would have taken at least 21 minutes for the aeromedical team to arrive at the scene. Dr Jones meanwhile placed his estimate at between 20 to 25 minutes, whilst Mr Murcott provided the shortest estimate of time, believing that the aeromedical team could have been at the scene within 15 minutes of being tasked to the job. Ultimately, it is not possible to be precise about the likely time that it would have taken the aeromedical team to reach Grant. However if any estimate is be regarded as being more accurate, preference should be given to the estimates provided by Dr Jones and Mr Murcott. They not only had firsthand and contemporaneous experience of travelling between Lismore and Murwillumbah, but also were the only ones who were aware of exactly how much pre-flight planning had been completed. That said, it is recognised that the estimates of at least Dr Jones and Dr Tall are not significantly different.

[169] Exhibit 17, page 11.
[170] 24/6/20, T7.11.

15.25 However, if the RLTC was aware of Grant being in cardiac arrest at the time that it was reported during the Triple Zero call at 3:45pm then, even if Dr Tall's estimate of 21 minutes is accepted, this would mean that the retrieval team would have arrived at the scene at around the same time as the first road ambulance at 3:57pm. Of course, this is predicated upon the RLTC being aware, or at least being informed, of the escalation of Grant's case to a priority 1A status. Regrettably, this lack of awareness was detrimental to the most appropriate resource being despatched at the relevant time.

15.26 Ultimately, apart from the question of whether the estimate of time for the aeromedical team to reach Grant was consistent with the provisions of ACC.HELI.15, other relevant considerations existed. These involved: (a) Grant's relatively young age and general prospects of survival; (b) the fact that the clinicians who were aware of the history of the incident from observing the CAD suspected the possibility of a traumatic cause for Grant's convulsions and cardiac arrest; (c) that pre-flight planning had already commenced; (d) that it was likely Grant would require eventual transfer to Gold Coast University Hospital; and (e) that the aeromedical retrieval team were able to provide a higher level of clinical care than the attending road paramedics. From a clinical perspective, each of these factors supported the despatch of the aeromedical team at 3:37pm, and at least by 3:46pm. However, clinical input was not sought from either the SCCO or the aeromedical team at the relevant time. This then emphasises the need for call takers and despatchers to appropriately seek clinical advice at relevant times in order to ensure that the appropriate resource is despatched.

15.27 It is acknowledged, as set out above, that NSWA has taken positive remedial action to address some of the issues arising from the circumstances of Grant's death. To this extent, it is accepted that this remedial action addresses some proposed recommendations advanced by Counsel Assisting in submissions, particularly in relation to auditing the prevalence of call takers asking Key Entry questions[171], and the means by which communication can be facilitated between clinicians and dispatchers, DCCOs and SCCOs such as the introduced Alert Line.

15.28 Nonetheless, the matters set out in [15.23] to [15.26] above indicates that further remedial action ought to be taken. It was submitted on behalf of NSWA that, as an organisation, it is already engaged in appropriate processes regarding clinical governance, service quality control and review, and training and education of staff members. However, having regard to the particular issues raised in this inquest, there appears to be an opportunity to advance and strengthen such processes. Accordingly, it is desirable to make the following recommendations.

[171] In evidence, Dr Tall explained: "*My understanding is that from this and other incidents that the normal quality assurance process for call takers to follow their script and the ProQA script is a multi-100 page document and the necessity to follow those protocols and procedures properly is something that is routinely audited and impressed upon people and my information is that that has continued*" (24/6/20, T12.5).

15.29 **Recommendation 3:** I recommend to the Commissioner and Chief Executive, NSW Ambulance that consideration be given to the circumstances of Grant's death (with appropriate anonymization, and conditional upon consent being provided by Grant's family and following appropriate consultation with them) being used as a case study as part of education and training packages provided to NSW Ambulance staff to emphasise the importance of the following matters: (a) the importance of call takers asking Case Entry and Key Entry questions to elicit information from callers as to the possibility of potential trauma involving a patient; (b) the importance of call takers asking Case Entry and Key Entry questions to assist despatchers in despatching appropriate resources; and (c) the importance of call takers and despatchers seeking appropriate clinical advice and assistance in situations where either the Case Entry and/or Key Entry questions have not been asked, or where information provided by a caller suggests that clinical input is indicated.

15.30 **Recommendation 4:** I recommend to the Commissioner and Chief Executive, NSW Ambulance that consideration be given to investigating the means by which data may be collected in order to identify whether call takers and despatchers are appropriately seeking clinical advice and input from Senior Control Centre Officers.

16. Findings

16.1 Before turning to the findings that I am required to make, I would like to acknowledge, and express my gratitude to Ms Anne Horvath, Counsel Assisting, and her instructing solicitors, Ms Christina White and Mr Gareth Martin of the Crown Solicitor's Office. Their assistance during both the preparation for inquest, and the inquest itself, has been invaluable and of the highest standard. I also thank them for the sensitivity and empathy that they have shown in this particularly distressing matter.

16.2 I also thank Detective Senior Constable Gary Sheehan for his role in the coronial investigation and for compiling the initial brief of evidence.

16.3 The findings I make under section 81(1) of the Act are:

Identity

The person who died was Grant Cook.

Date of death

Grant died on 12 September 2016.

Place of death

Grant died at Gold Coast University Hospital, Southport Queensland 4215.

Cause of death

The cause of Grant's death was hypoxic brain injury as a result of a respiratory arrest, after inadequate respiration and failure of airway protection associated with a grand mal seizure, following an accidental traumatic brain injury. This led to eventual cardiac arrest and brain ischaemia, causing cerebral and brainstem herniation.

Manner of death

The accidental traumatic brain injury was most likely caused when Grant was tackled whilst playing in a rugby league game, with the mechanism of injury involving Grant falling to the ground whilst unbalanced and his head impacting with the ground.

17. Epilogue

17.1 A week after Grant's tragic death, the Murwillumbah Mustangs went on to become premiers of the 2016 NRRRL competition. The final and premiership were appropriately dedicated to Grant's memory. The resolve, courage and resilience shown by the team in such circumstances is a reflection of how highly Grant was regarded, and the enormity of his loss to his family, teammates, friends and local community.

17.2 On behalf of the Coroners Court of New South Wales, I offer my deepest sympathies, and most sincere and respectful condolences, to Colleen, Mia, Carter, Geoff, Jean, Grant's siblings and his family and friends for their devastating loss.

17.3 I close this inquest.

Magistrate Derek Lee
Deputy State Coroner
30 October 2020
Coroners Court of New South Wales

Inquest into the Death of Grant Cook

Appendix A
Recommendations made pursuant to section 82(1) *Coroners Act 2009*

Recommendation 1: I recommend to the Chief Executive, New South Wales Rugby League Limited (**NSWRL**) that, in consultation with appropriate medical experts, consideration be given to the development and dissemination of appropriate education and training programs for NSWRL participants which emphasise the importance of detecting head injuries, and the types of mechanisms by which head injuries may be occasioned, including the risks of second impact syndrome. Such education and training programs should be appropriately modified depending on the age and playing experience of the participants to whom such programs are targeted.

Recommendation 2: I recommend to the Chief Executive, New South Wales Rugby League Limited (**NSWRL**) that, in consultation with appropriate medical experts, consideration be given to the development and dissemination of appropriate education and training programs for NSWRL coaching staff, refereeing staff, ground staff, participants and parents of participants in relation to the types of mechanisms by which head injuries may be occasioned, and how observations of potential head injuries may be appropriately communicated to sports trainers in order to determine whether an assessment of a player is warranted, whilst at the same time ensuring that this communication does not adversely impact upon functions and responsibilities of such trainers.

Recommendation 3: I recommend to the Commissioner and Chief Executive, NSW Ambulance that consideration be given to the circumstances of Grant's death (with appropriate anonymization, and conditional upon consent being provided by Grant's family and following appropriate consultation with them) being used as a case study as part of education and training packages provided to NSW Ambulance staff to emphasise the importance of the following matters:

(a) the importance of call takers asking Case Entry and Key Entry questions to elicit information from callers as to the possibility of potential trauma involving a patient;

(b) the importance of call takers asking Case Entry and Key Entry questions to assist despatchers in despatching appropriate resources; and

(c) the importance of call takers and despatchers seeking appropriate clinical advice and assistance in situations where either the Case Entry and/or Key Entry questions have not been asked, or where information provided by a caller suggests that clinical input is indicated.

Recommendation 4: I recommend to the Commissioner and Chief Executive, NSW Ambulance that consideration be given to investigating the means by which data may be collected in order to identify whether call takers and despatchers are appropriately seeking clinical advice and input from Senior Control Centre Officers.