QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INVESTIGATION

CITATION:	**Non-inquest findings into the death of Jerry Arthur Dennis**
TITLE OF COURT:	Coroners Court
JURISDICTION:	Southport
DATE:	11 February 2015
FILE NO(s):	2012/3370
FINDINGS OF:	James McDougall, Southeastern Coroner
CATCHWORDS:	CORONERS: Investigation, Surf Life Saving Club training session, drowning, cardiomegaly

Jerry Arthur Dennis was 17 years old. He resided with his family at 41 Mirreen Drive, Tugan. Jerry Dennis was a member of the Northcliffe Surf Life Saving Club.

The Northcliffe SLSC conducted regular flat-water training sessions in the canals of Mermaid Waters as part of their approved training regime. The training sessions started in the canal at Sunshine Boulevard adjacent to Oceanic Drive. Mr Mark Williams was in charge of the training and Mr Kevin Morrison was the coach taking the session. The session started at 4pm. Mr Williams remained at the start location while the paddle board group moved off with Kevin Morrison on a surf ski. All members were wearing High Vis singlets. Mr Morrison started at the head of the main training group and drifted back through the group as the session progressed. Jerry Dennis was training with the main training group. At approximately 15 to 20 minutes after the start of the session, Jerry Dennis informed some other members of the training group that he was feeling unwell and was going to paddle back to the start. He did not inform Mr Morrison of this. There was another group of paddlers who were paddling in an informal session in the opposite direction to the main training group. This group paddled past the main training group and approximately 1 minute after passing them members of the group came across a board floating in the middle of the canal. Mr Adam Jones of the Northcliffe SLSC raised the alarm and the main training group of paddlers returned to the scene and commenced searching. Members of the public provided goggles and snorkeling masks to the group. This was at about 4.15 pm. Prior to this Jerry Dennis was seen to fall from his board by a member of the public on the banks of the canal before trying to swim to the side.

Members of the Northcliffe SLSC conducted a search of the area and formed a line across the canal in an attempt to locate Mr Dennis. He was found at about 5.05 pm. By that time paramedics from QAS were already in attendance and began resuscitation attempts. Those attempts ceased after about 20 minutes and life extinct was pronounced.

Surf lifesaving Queensland conducted an investigation into the incident as was appropriate in accordance with their regulations and the review panel made a number of recommendations. Those recommendations are;

1. That Surf Life Saving Queensland (SLSQ) takes steps to ensure that all members are aware of the search and rescue methods articulated by SLSQ.
2. Assisting craft are equipped with first aid and resuscitation equipment
3. Flippers, goggles and underwater torches are kept on the assisting craft and back at the start point. Multiple pairs need to be available e.g. at least 6 sets on each assisting powered water craft.
4. Radios are provided as described earlier
5. GPS available on the powered water craft so the exact location can be given to rescue authorities
6. A strict protocol is followed so the safety of rescuers is assured though the first on scene should do whatever is safe and reasonable to achieve rescue until further help arrives.

I consider the findings of the review panel and their recommendations are reasonable

and appropriate. However, I consider it unlikely in all the circumstances that strict application of those recommendations at the time of this incident would have saved Mr Dennis' life.

An autopsy was conducted on the 2nd of August 2013 and at autopsy the pathologist found as follows.

1. A large amount of frothy fluid throughout the trachea-bronchial tree and marked pulmonary oedema with sub plural haemorrhages in the lungs. Appearance is consistent with drowning.
2. Microscopy of the lungs showed typical changes of asthma (although there was no past history of this condition) and mild changes consistent with recent mild viral lower respiratory tract infection.
3. Asymmetrical left ventricular hypertrophy with the interventricular septum measuring 22-27 mm in thickness and the free wall of the left ventricle measuring 14-18 mm in thickness. The left ventricular cavity was small. Microscopy did not show the typical changes of hypertrophic cardiomyopathy (no fibre disarray, no intramural coronary artery narrowing, very mild interstitial fibrosis only.
4. Fracture of the thyroid cartilage (without haemorrhage), likely secondary to retrieval/attempted resuscitation. No evidence of other significant injuries
5. Toxicological analysis of samples taken at autopsy detected no drugs or alcohol.

The pathologist concluded;

Autopsy revealed the presence of abundant frothy fluid throughout the air passages and marked pulmonary oedema (waterlogging) of the lungs. Small haemorrhages were present in the lungs. The appearance is consistent with those seen in drowning.

Also present at autopsy was enlargement of the left ventricle (main pumping chamber) of the heart. The pattern of the enlargement – asymmetric enlargement of the heart muscles being thicker in the area between the two ventricles (inter-ventricle septum) and the free wall of the left ventricle – is consistent with that seen in hyper tropic cardio myopathy. However, the typical features described for hyper tropic cardio myopathy that are seen under microscope were absent. No myocardial disarray, no intermural coronary artery narrowing and there was only very mild interstitial fibrosis (fine scouring of the heart muscle – usually more pronounced in hyper tropic cardiomyopathy).

The main diagnosis to exclude in a young fit person is physiological enlargement of the heart that occurs with regular strenuous exercise. It is said in the medical literature, that in physiological enlargement of the heart, the thickness of the wall of the heart should be no more than 15mm. Jerry's heart was between 22 and 27 mm in thickness in the interventricular septum and 14-18 mm in thickness in the free wall of the left ventricle. In physiological enlargement of the heart, the cavity of the left ventricle is usually enlarged, whereas in hypertrophic cardiomyopathy it is characteristically small, as was Jerry's. Additionally, in hypertrophic cardiomyopathy, there is fibrosis in the heart muscle (as was present to a mild

degree in Jerry), which is not present in physiologic enlargement.

Therefore, the macroscopic (naked eye) appearance of Jerry's heart suggested hypertrophic cardiomyopathy, although this was not supported by the appearance under the microscope. However as hypertrophic cardiomyopathy is frequently an inherited condition, and other immediate blood relatives may also be at risk of the condition it would be advisable to treat Jerry's condition as ***'probable hypertrophic cardiomyopathy'*** *and for his relatives to seek further medical advice as to possible cardiac investigation.*

Whatever the cause of the cardiomegaly (enlarged heart), the presence of the fibrosis puts the heart at risk of developing an arrhythmia (abnormal beating), which can be fatal of itself or can cause unconsciousness, which can be fatal if the person is in a dangerous environment such as in water where they can drown. In my opinion, the direct cause of his death was drowning, likely secondary to arrhythmia of his enlarged heart causing him to become unconscious in the water.

I find that Jerry Arthur Dennis died at Lake Wonderland Canal at about 4.25 pm on Thursday 1 August 2013 when he was taking part in a training session with Northcliffe Surf Life Saving Club. I find that he became unconscious and fell into the water and drowned. The cause of death was drowning due to or as a consequence of cardiomegaly. The other significant condition found at autopsy was asthma with recent respiratory tract infection.

James McDougall
Southeastern Coroner
Southport
11 February 2015