



THE ONE THAT GOT AWAY!

Quick thinking and appropriate action by medical rescue staff and bystanders minutes after a Great White shark ripped off a teenage surfer's leg in Muizenberg have helped redefine the limits of what resuscitation experts believe is possible.

A team of paramedics and doctors worked feverishly for 30 minutes on the pulseless John Paul Andrew (16) of Lakeside, before deciding to move him to an ambulance where they agreed that cardiopulmonary resuscitation could be discreetly stopped.

Said paramedic Paul Alexander, 'I arrived about 8 minutes after the attack, and he had a flat line on the ECG. We did everything we could. We weren't

prepared to terminate with the crowd and media there and decided to move him.'

About 2 minutes after the ambulance slowly got underway, a member of the crew administering oxygen shouted that he could feel a faint pulse. The battle to save JP's life in the 5 April beachside drama was back on again.

Some 20 units of blood, a second cardiac arrest, cerebral oedema, several surgical procedures and 18 days later, JP was sitting up in bed in the Constantiaberg Hospital, joking with his parents and surfing buddies.

The lower portion of his right leg, from the knee downwards, was found still tethered to the keel of his surfboard

on Bikini Beach on the other side of False Bay, 4 days after the attack. Stellenbosch police confirmed that it was being held at their mortuary until JP's family had decided what to do with it.

About 18 cm of JP's thigh is missing, prompting speculation that this was the size of the shark bite.

JP is the only son of Robert, a Kalk Bay commercial fisherman and Estelle, a shop manager at Redham High School in Westlake.

Said Ian Klopper, a National Sea Rescue Institute paramedic, 'In 20 years of working with massive trauma, I've never seen anyone come back from death like this'. Klopper said JP had



*Sister Fiona Maile tends to sharkbite victim JP Andrew's stump while his parents Estelle and Robert lend support.
Picture: Chris Bateman*

'pushed the envelope of what is viable for resuscitation. This is a new standard. We won't give up in future where previously we might have thought it's not even viable to start'.

As the SAMJ went to press the teenager's vision was impaired but improving and he had regained his



The bite wounds to JP's intact left leg.

higher faculties. His survival is the result of a happy coincidence of suitably qualified rescue staff being nearby when the attack came, and the quick thinking of an unidentified painter at the Muizenberg Pavilion who ripped off his belt to apply a tourniquet early on.

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Said Inspector Arnold Roberts, a qualified ambulance emergency assistant and Muizenberg's law enforcement station commander, 'The young lifeguards panicked a bit and took him from the water up to the pool house instead of leaving him head-down at the water's edge as we are taught'. JP passed out from massive blood loss soon after the first tourniquet was tightened around his stump.

Roberts said he arrived to find his law enforcement colleagues performing CPR.

'I got his entire lower body elevated,' he said. 'There were no veins and it took two attempts for me to get an 18-gauge ring needle in. I can tell you I've never seen anything like it. To be quite honest I thought he was dead. His pupils were fixed and dilated and he was cyanosed. I thought it was futile — there was nothing going on.'

Added Klopper, 'I've never witnessed a patient being recommended for termination by two doctors and various paramedics, who doesn't actually die'.

Alexander said that in his experience only about five per cent of resuscitation patients survived.

A reconstruction from SAMJ interviews reveals that within 15 minutes of the attack the teenager had four IV lines inserted, was intubated and being plied with resuscitation drugs and fluids.

JP's specialist physician, Dr Derek Miller, agreed that the recovery was miraculous.

When Miller got to him within 10 minutes of his arrival at Constantiaberg's emergency unit, JP was on a ventilator and had virtually no blood pressure.

'We got his BP up and then he started to bleed because the tourniquet was not tight enough — it took about 45 minutes to stabilise him and at one stage he arrested for about 5 minutes but responded to adrenalin,' said Miller.

After an initial four units of blood, JP was given another 16 over the next 36 hours during which he was taken to theatre for surgical removal of foreign material and/or dead, damaged and infected tissue.

Miller said that JP woke up on the third day after being weaned from sedation and was lucid and could follow simple verbal commands for about 2 hours. However, he quickly developed raised intracranial pressure

and required heavy sedation for another 5 days before once more being weaned back to consciousness.

JP had 'pushed the envelope of what is viable for resuscitation. This is a new standard. We won't give up in future where previously we might have thought it's not even viable to start'.

After extubation, Miller added, JP seemed to have cortical blindness and was 'very, very weak, especially with co-ordination of his arms, but we're ecstatic he's alive!'

Miller said he was amazed there had been no sepsis problems. The amputation was 'absolutely clean-cut, like a guillotine with no excessive skin or muscle trauma'.

His 'JP survival theory' is that there was major trauma to only one limb, allowing the haemorrhaging to be quickly stemmed with the tourniquet. (JP did suffer a gash to the lower left leg that was repaired by plastic surgery, along with the stump.)

Miller added that the resuscitation was enough to maintain adequate blood flow to the brain. He said if he were to recommend anything to rescuers in a similar situation in future, it would be to tie a tourniquet on 'as tightly as possible'.

Added Klopper, 'I've never witnessed a patient being recommended for termination by two doctors and various paramedics, who doesn't actually die'.

'JP asked me how much blood he lost and I told him, "all of it!"'

Upon noting the wound on his remaining leg for the first time, JP had quipped to him, 'Did he bite me twice, the bugger?'

Miller added that the paramedics had done a 'superb job' in getting the



The repaired stump of JP's right thigh.

teenager to hospital alive. A helicopter pilot spotted the shark shortly after the incident, and estimated its length at 5 metres. This was confirmed by eyewitness to the attack, surfing instructor Chris Baker, who dispatched his class of young girls to the beach on an incoming wave after seeing the shark fin.

'JP and two or three buddies were about 20 metres from us — I saw it suddenly power towards him from the beach side heading towards the open sea. He was just engulfed by water. My attention was distracted by another fin between us, heading towards the shore — but I saw the attack shark do a big U-turn in a swell and head back towards where JP was bobbing in the water.'

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Another surfer, Grant Kirkland, paddled over 'a wave turned red with blood', towards JP and loaded him onto his longboard as Baker got to the scene.

'The first thing I noticed was how cleanly it had taken him. There was loads of blood in the water but his leg was absolutely sliced off and you could see the wet suit, skin, meat and then the bone in the middle,' he added.

Professor Jonathan Peter, head of neurosurgery at the University of Cape Town, said prognostication around brain damage in young people was exceedingly difficult.

Children from about 5 - 17 years old seemed to be more resilient. 'There seems to be more plasticity in the brain and their ability to recover is better than, say, someone of 60.'

He cited the case of a 6-year-old near-drowning victim from Kimberley he had examined 3 weeks after her incident. She was looking jerkily around the room without her eyes fixing on any particular object and he grimly told her

parents that she would survive but probably remain spastic with weakness of the muscles in all four limbs and trunk. 'Six months later I was on a visit to the hospital and they said they had a surprise for me. She came running up to me and gave me a big kiss — I thought, help, have I made a big mistake here!'

Added Peter, 'I just don't know that you can prognosticate at the side of a stretcher on the beach — one can be surprised. I don't know what the magic number is'.

Speaking through the SAMJ, resident False Bay Great White shark expert, Chris Fallows, offered JP a ride on his research boat to help him balance the trauma of his attack with a wider perspective of the magnificent predator.

Chris Bateman



*False Bay's top predator, the Great White shark, taking a seal shortly after sunrise.
Picture: Chris Fallows*