



# Perspective

Metropolitan Ambulance Service

April 2008



## ADULT RETRIEVAL SERVICE TAKES OFF

**V**ictoria's new retrieval service for critically ill adult patients has taken off in earnest, escorting 160 patients in the first three months of operation.

About 30 per cent of patients had cardiac disease, with other major conditions including respiratory illness, trauma and stroke.

'This is a vital service for people in critical condition, particularly those in outlying areas of the state who need urgent access to specialist care,'

said the Director of Adult Retrieval Victoria (ARV), Dr Marcus Kennedy (pictured above).

'This is a service that saves lives. It is also a service we intend to improve significantly so we provide a truly responsive one-stop retrieval and critical care outreach service to the whole state.'

In its first three months, the service dealt with patients from more than 40 Victorian hospitals. Patients came from Gippsland (40), Barwon/South-West (37), Loddon Mallee

(30), Grampians (26) and Hume (18). Nine patients were flown from interstate, including Hobart, and the NSW towns of Albury, Deniliquin and Pambula.

Most patients were taken to critical care beds in Melbourne hospitals. About two-thirds of the patients were escorted by MICA paramedics, and one-third by specialist retrieval physicians.

Doctors employed by ARV have three main roles:

- Providing expert clinical advice

by telephone, mostly to doctors in regional hospitals

- Providing adult emergency retrieval services for critically ill patients

- Coordinating access to the state's critical care beds.

'In many cases, our doctors give clinical advice in complex cases. They also find critical care beds (intensive care and cardiac care beds), saving hospitals a lot of time and effort.'

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## Making a difference

After five years as the director of Victoria's busiest hospital emergency department, Dr Marcus Kennedy is excited about expanding the state's adult retrieval system.

'This is an opportunity to make a significant difference to Victoria's medical system,' Dr Kennedy said.

At the Royal Melbourne Hospital, Dr Kennedy worked closely with critically ill patients. 'The department would see up to 200 patients a day, of which 30 to 40 would be critical. That's a huge load of extremely unwell patients,' he said.

'The Royal Melbourne has the busiest adult emergency department in Victoria. It sees 20 per cent more patients than other hospitals and sees similar trauma numbers to the Alfred. It is a very high-acuity department, and a stimulating place to work.'

Dr Kennedy said leaving the Royal Melbourne was a difficult decision. 'There are few jobs that I would have left the Royal Melbourne for, but this was one that grabbed me. This role is about effectively building a new service that can make a tremendous difference to critically ill people, especially those in regional Victoria. The chance to do that within an organisation as slick as MAS clinched my thinking.'

## Where the patients have come from...



For the first three months of operation. Source: ARV

### From page 1

The service works closely with Air Ambulance Victoria. Some patients are flown by plane, some by helicopter and some come by road.

'ARV patients are already in hospital when we are called,' said Dr Kennedy. 'They may be very ill when they come in, or they may have suddenly deteriorated in hospital. Our role is to get them to critical care facilities as quickly as practical.'

ARV began operations on 26 November 2007, replacing the Victorian Adult Emergency Retrieval and Coordination Service (VAERCS), previously based at St. Vincent's Hospital.

MAS was asked to take over the service after a review by the Department of Human Services.

ARV is part of MAS (a department within the MAS Operations Division), and employs doctors to provide advice and escort critically

ill patients who need specialist care. The service operates 24 hours a day, and also has retrieval physicians based in regional centres (Ballarat, Bendigo and Geelong).

'We have already made significant improvements, including adopting a system of clinical governance and markedly improving the internal systems,' Dr Kennedy said.

'There's a significant opportunity now to provide a better service and a more responsive service, and a service which provides a higher crew skill mix than has been achievable before.'

'We can bring together the logistic expertise of MAS and its clinical experience, partly through the MICA system, together with what has been developed over the years with adult retrieval.'

In coming weeks, ARV will be consulting clinical staff across the state about the future plans of the service. 'This is part of the planning

phase that is looking forward to 2009-2010 and beyond, with the opportunity for a newer and broader vision,' Dr Kennedy said.

'That may involve changes to the transport platforms we use, where they are positioned, the types of crews we construct, their responsiveness.'

Dr Kennedy said there would be the opportunity to train junior doctors in retrieval medicine.

'We aim to deliver a highly professional service with the highest level of clinical care within the most responsive timeframes possible, often to people who are the most isolated or least able to rapidly access critical care services.'

**Adult Retrieval Victoria**  
**ARV**  
 Coordinators of Critical Care Services

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**Designed and typeset by**  
The Modern Art Production Group  
Studio 8, 27 Izett Street  
Prahran Victoria 3181  
Tel 03 9525 2005  
www.mapg.com.au

**Printed by**  
Erwins Printing  
22 Dunn Crescent  
Dandenong Victoria 3175  
Tel 03 9793 4844

*Editorial and Publishing Services, Modern Art Production Group and Erwins Printing are part of the Associations Communications Group*

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ISSN 1832-2611

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Perspective is produced by the Corporate & Community Services Division of the Metropolitan Ambulance Service.





Paramedic Randal Woods knows the value of training the fire brigade in life-saving techniques.

# How speed and skills can save lives

Paramedic Randal Woods knows the value of training the fire brigade in life-saving techniques.

'We follow up every case they are involved with, including the many good outcomes we get with cardiac arrests. Put simply, the MFB save lives.'

'The biggest kick I get is visiting patients in hospital and having them appreciate being alive. Recently I went and saw a 70-year-old man - his family was over the moon when he got out of bed.'

Since 1998, MFB crews have been trained in life-saving techniques, including how to resuscitate patients in cardiac arrest (when their heart has stopped beating) using defibrillation machines.

When an emergency 000 call reports a cardiac arrest - or other life-threatening events including respiratory arrest, hangings, drowning and electrocutions - both an ambulance and the fire brigade are sent.

The first to arrive treats the patient, improving the odds of a good outcome in a time-critical emergency.

Monash University now trains new

MFB recruits, with paramedics such as Mr Woods giving regular training sessions at fire stations to keep skills up-to-date.

'Before the MFB became involved, we'd get to a car accident and we'd each do our own thing,' says Mr Woods.

'There's been a massive culture change. They are a massive help. We rely on them at times because it frees us up to do much more work on scene.'

A recent case involved a boy, 15, who needed several shocks with defibrillator to restart his heart. 'They did a lot of work on him, and then a fire brigade officer came in the ambulance with us to assist on the way to hospital. The boy arrested again at the hospital. And now he's home with his mum. Another great result.'

Mr Woods, a former critical care nurse who joined MAS in 1995, has worked for the past five years in the Emergency Medical Response area.

His role includes training MFB staff at the fire brigade's 48 stations and training volunteers who supply an emergency response in three areas on Melbourne's outskirts - Kinglake, Lang Lang and Craigieburn.



MAS Group Manager Tony Elliott supervises CFA volunteers Daniel Gregory (left) and Scott McHugh.

## CFA in life-saving pilot

Volunteers at five Country Fire Authority (CFA) brigades have begun using frontline life-saving techniques, after training by MAS.

The training mirrors other programs given to 'first responders', with education in CPR, semi-automatic external defibrillation, initial management of spinal injuries, respiratory distress and trauma cases.

About 24 volunteers have

been trained from CFA crews at Whittlesea, South Morang, Berwick, Mornington and Edithvale. These CFA areas are outside the Metropolitan Fire Brigade's area, but within the area serviced by MAS.

MAS will audit all cases attended by CFA volunteers. The training is part of a 12-month pilot project. The results will be evaluated, with a view to expanding the training to other CFA stations in the MAS area.



# 'Hundreds hurt' in train, tram blasts

**M**AS paramedics treated more than 200 patients (including dealing with multiple fatalities) after an explosion on a train at Southern Cross Station and aboard a tram in North Melbourne in February.

Thankfully the incident was only a hypothetical desktop scenario as part of a multi-agency training exercise known as Exercise Nexus.

The exercise was held at Telstra Dome on 27 February and saw representatives from MAS, Victoria Police, Metropolitan Fire Brigade and state and federal government agencies working together.

Emergency Planning Manager and Exercise Co-ordinator Jon Byrne said the lessons learned from this sort of scenario were applicable to everyday pre-hospital care.

'This may have been an exercise with extreme proportions, but for a paramedic what is important is taking away the same principles and using them in more common scenarios,' Mr Byrne said.

'Paramedics need to be able to quickly assess a situation, determine what level of response is required, triage patients accordingly and quickly get a number of patients away from a scene.'

'That sort of thought process is exactly the same for a two-car crash with six patients as it is for an incident like this with over 200 patients.'

For MAS, it was also a chance to demonstrate to other emergency services their preferred method of

*Moving magnetic 'patients' as part of the Swedish-designed Emergotrain system.*



mass casualty simulation, known as the Emergotrain system.

'Emergotrain is a Swedish devised system where an incident unfolds in real time using magnetic 'patients' stuck to a whiteboard, representing real patients,' Mr Byrne said.

'On their flip side they have the patient's age, gender, medical history and injuries. Any treatments that a paramedic wishes to perform have an associated treatment time

meaning nothing else can be done by the paramedic during that time. The same works for transport time, even down to the fact that if a manager leaves a scene to go to a forward command post how long that walk takes.

'We do one of these exercises every month as part of our regular training. It is a valuable, efficient way to keep all of our paramedics exposed to this level of incident

and make them think about what is required for any mass casualty situation.

'For the other emergency services though, this is the first time that they have seen anything like this and become involved in it. This is actually the first time any where in the world that a full-on, real-time crime scene investigation has been integrated into an Emergotrain set up.'

## MICA skills cut heart treatment time

**P**atients suffering heart attacks are being treated quicker than ever thanks to collaboration between Southern Health and the Metropolitan Ambulance Service.

In a pilot program, MICA paramedics in Melbourne's south-east are using a 12-lead ECG (which traces the electrical activity of the heart) to assess patients suspected of having a heart attack.

If the ECG identifies a potential blockage in an artery, MICA paramedics contact doctors at Monash Medical Centre, who arrange for the patient to bypass the Emergency Department and go straight into an operation to clear the blockage.

This usually involves angioplasty - inserting a 'balloon' into the artery, which clears the blockage and allows blood flow to return to normal.

'Every 30 minutes we take off

the hospital door-to-balloon time reduces the chances of a patient dying from either this heart attack or related events within the next 12 months by seven per cent,' said MICA Paramedic Ian Jarvie.

The first patient, Mr Leslie Curtis, 48, from Aspendale, was treated in the early hours of Tuesday 11 December, after complaining of chest pain.

The ambulance arrived within a couple of minutes of the call, and at 3.56am, a 12-lead ECG was performed in the ambulance. At 3.58am, a consultant cardiologist was paged and a cardiac team was assembled.

Just 30 minutes after arriving at hospital, Mr Curtis was on the operating table, and his artery blockage was opened 64 minutes after his arrival at Monash Medical Centre.

A grateful Mr Curtis was back on



*MICA paramedics Matthew Shepherd (left) and Brendan Webster apply a 12-lead ECG to Leslie Curtis.*

his feet later in the day. 'Everything just happened so quickly,' Mr Curtis said the day after his angioplasty. 'I'm just lucky that they started this new system when they did. I feel so well now; it's hard to believe it all

really happened.'

In the first 10 weeks of operation, 43 patients have been treated, with an average door-to-balloon time of 56 minutes - compared with 106 minutes before the trial began.



# Restructure brings specialists together

**T**he Metropolitan Ambulance Service is set to create a new department that brings together several highly specialised paramedic areas.

The Specialist Emergency Response department will amalgamate Mobile Intensive Care Ambulance (MICA) paramedics, Air Ambulance, the Emergency Management Department and MAS' Clinical Support Officers (CSOs).

The new department will focus on maximising benefits of the similarities between the specialised areas and is expected to result in the improved delivery of clinical care.

General Manager of Operations, Mr Keith Young, said the restructure was a response to a growing awareness of staff needs - particularly in the MICA area - and a response to the growing complexity of the business of ambulance.

'We undertook a broad organisation-wide staff survey in mid-2007 with the aim of establishing how paramedics perceived their current workplace and what they saw as the optimum workplace,' Mr Young said.

'The results from that survey, along with broader consultation with our intensive care paramedics, established that something needed to be done to maintain their clinical

relevance and ensure that they were working in a positive environment.'

Mr Young said MICA was formed more than 35 years ago. 'Things have changed a lot from those days to now. Every paramedic in the service is now trained in advanced life support, meaning they are now able to provide treatment for patients who were previously the domain solely of intensive care paramedics.'

In turn, MICA paramedics have become more highly skilled, providing sophisticated clinical interventions and specialised drug treatment to some patients.

Mr Young said MAS was committed to MICA and was delighted that more than 40 paramedics had already enrolled for intensive care training in 2008, which would help ease the current shortage.

'We acknowledge that we are about 45 people short from what we would see as an ideal number of MICA paramedics to meet the needs of MAS, however it is really pleasing that we have already enrolled almost that number for courses over this year,' Mr Young said.

'You put that in addition to the 130 ambulance paramedics recruited last year and the 178 recruited for this year and you can see that we're putting ourselves in a position to

ensure that we can meet community expectations for ambulance services, both now and into the future.'

The restructure is in its early phases, with a significant amount of further staff consultation yet to occur. Initial steps, however, include the creation of two new groups, MICA East and West, each with their own dedicated MICA group managers.

For the other specialist areas, the restructure will mean a better integration of skills.

Operations Manager Paul Holman, who will be responsible for the new department, said the specialist areas in the new department already had a lot in common, and the restructure made sense.

'You look at what MICA do, the clinical skills they can offer. You look at air ambulance, with an increased focus on the retrieval and transfer of patients from rural hospitals. You look at the growing area of work involved in emergency management. And add the high-level clinical support provided to staff from our CSOs.

'There are so many overlaps and synergies evident. Bringing the separate areas together has an extremely positive feel to it,' Mr Holman said.

Mr Holman said MICA officers

were trained to the highest level of paramedic skills. 'It is the sort of skill level that is required when you attend critically ill Victorians whether it be at an accident scene, someone having a heart attack or utilising advanced medical technology when transferring a critically ill patient between hospitals.'

'Additionally, from an emergency management point of view, the similar high level of care is required for programs such as urban search and rescue (USAR). If there has been a building collapse or a train crash and there are multiple people trapped and injured, we need these skills to ensure we maximise the care we provide to our patients,' Mr Holman said.

'To bring them all together in one department means that we can better share our experiences, our skills, our training opportunities and can increase exposure of different experiences to more people.

'This is something that will have a direct benefit to the community through ensuring the long-term provision of MICA services. And the paramedics will also benefit from a more appropriate management structure, better opportunities and the ability to challenge themselves in new ways,' Mr Holman said.



# Building a better ambulance service

**M**ore than a century of ambulance memorabilia has been unveiled at the Ambulance Historical Society Victoria Museum in Thomastown.

The museum houses numerous collections including uniforms, records, equipment and vehicles.

The vehicle collection ranges from an 1887 Ashford litter to a 1999 GMC and includes an impressive 1916 Talbot, which has appeared in a number of films, including *Gallipoli*.

The Historical Society was formed in 1986 and soon after began avidly collecting memorabilia. Items were previously stored at South Melbourne, but not put on display because of a lack of room.

The museum was officially opened in October by MAS CEO Greg Sassella and the President of the Historical Society, Ken Curtis. The museum is open to visits from school groups, interested individuals and organisations.

Anyone wanting further information can contact Chas Martin on 0428 813 385.



*From the past...*



CEO Greg Sassella opens the Historical Society Victoria Museum.

*to the present...*



MAS CEO Greg Sassella and Health Minister Daniel Andrews at the opening of the new Richmond branch.



The new Reservoir branch, officially opened on 30 January 2008.



The new Mordialloc branch, officially opened on 22 January 2008.



The new facilities at the La Trobe Valley for the HEMS-2 helicopter, which is operated by MAS.



South Melbourne – a new branch has opened alongside the new Emergency Management Department headquarters and the administration centre for Adult Retrieval Victoria.



# Live-saving helicopter comes of age

**M**elbourne's first ambulance helicopter has celebrated its 21st birthday.

Originally code-named Air-495 - and now known as HEMS-1 (Helicopter Emergency Medical Service-1) - the helicopter has flown thousands of patients since its first mission in 1986.

When it began flying, the then Health Department said it needed to fly 72 time-critical patients in

its first year to justify its existence. In the first 18 months it flew 359 people. Over the past 10 years HEMS-1 has completed 8,284 cases and 7,160 flying hours.

Today, MAS operates three HEMS aircraft, based at Essendon, Bendigo and the La Trobe Valley. The helicopters provide a 24-hour response for critical emergencies, and are involved in search and rescue, winch operations and sea rescues.

HEMS-1 has been a collaborative partnership with Victoria Police for the past 21 years, with Victoria Police providing the pilot and crewman. The Essendon helicopter is also used for police cases. The eurocopter twin-engine Dauphin N3 operates mostly within 175 km of Melbourne.

The MICA flight paramedics offer the highest-level of pre-hospital care available. Selection is rigorous, and includes physical fitness and

swimming tests.

During training, MICA flight paramedics must maintain a high level of clinical skills by completing an aero medical course through Monash University, as well as study air safety and regulations, and complete Helicopter Underwater Escape Training (HUET).

Fifty-four MICA flight paramedics have worked on HEMS-1 since it first took to the air.

## letters of thanks...

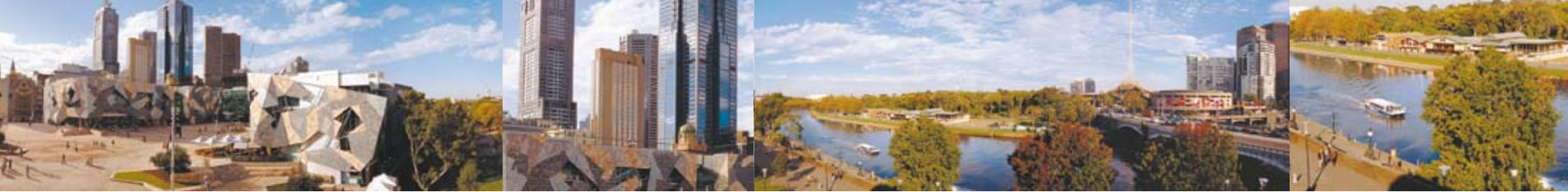
On behalf of my brother and his partner and both families I would like to sincerely thank all of the attending staff for their outstanding care and assistance after the horrific motor bike/car accident last Saturday.

Both my brother and his partner survived because of the wonderful treatment you provided at the scene. Because of the concern of head/brain damage he was airlifted by helicopter to the Alfred. We are so grateful that this facility was available to use for him. We are so happy and grateful that they are alive to tell the tale and we know that without you all attending them at the accident that would not have been the case. Keep up the fantastic work, but we hope they don't have to use your services again!

I would just like to thank the paramedics in attendance on the day a friend broke his femur. We were in a very remote location on the side of a steep hill in the dark and the level of professionalism that they conducted themselves in was world class. Please never dilute this truly outstanding service that you provide. I'd also like to thank the helicopter pilot for waiting for us to get him off the side of the hill too. Thanks again to all involved.

Just writing to say a huge thank you to the road crews and air ambulance for their great work stabilising me and getting me to the Alfred. I was kite-surfing at Aspendale and a gust carried me 100m into 2 brick walls. My injuries included: base of skull fracture and severe traumatic brain injury, 1 pneumothorax, 1 contused lung, broken femur, fractured and dislocated ankle, fractured rib & hip, orbit & nasal fractures. On arrival I was given 20 per cent chance of survival. And even though that's slim, I am truly thankful. Four months later I was out of rehab and home with my wife and baby. Now, 14 months on I am walking unaided, back at Uni, driving and generally back to normal life. Thanks again.

My family and myself were involved in a car accident on the above date. We would like to pass on our thanks to all of the ambulance officers involved (three road trips to Dandenong and one by air to the Alfred. We were all really impressed with the calm, reassuring and professional manner in which all of those involved went about their work. We are all mending well.



# 'Thank You' Our Community Heroes

**S**eventeen ordinary Australians have been officially recognised as Community Heroes for selfless acts in helping others in distress.

Nominated by MAS paramedics, the 17 people were involved in 10 incidents. Their awards were presented at Queens Hall, Parliament House, in December.

Minister for Health Daniel Andrews congratulated the recipients during the awards ceremony. 'The stories of our heroes really are incredible... today is a day that gives us all a chance to remember that humanity overall is full of good people who are doing extraordinary things.'

The 2007 award recipients included:

- A woman who climbed into a car after a high-speed accident to comfort and provide first aid to an 11-year-old boy trapped under the car's dashboard.
- A childcare worker who grabbed and tightly held a five-year-old boy after a hook went through his eyebrow. Fearing it had damaged his eye, the woman kept the distressed boy calm and still until paramedics arrived.
- Two people who provided CPR to a 57-year-old stranger at a Melbourne gymnasium.
- A teenager's compassionate actions in looking after a woman, 83, who fell down concrete steps. He got off a passing bus, kept the woman warm, stopped the bleeding from her leg, and refused to leave until she was transported by paramedics.

It was the eighth year the awards have taken place. Those recognised came from more than 70 nominations made during the year.



*Jane Hopkins with paramedics Kerryn van Loon (left) and Belinda Canteri (right) at the awards ceremony. Jane was nominated for her calm and alert behaviour in calling 000 after her grandmother collapsed.*



*Community Hero Rachel Summers, with (from left) MAS CEO Greg Sassella, MICA paramedic Andrew Allan, and Health Minister Daniel Andrews. Rachel was recognised for coming to the aid of her neighbour, who was accidentally crushed between his car and garage. Rachel began effective CPR after her neighbour's heart stopped beating, then helped paramedics treat the trapped man until he was transport to hospital. He survived.*



*When paramedic Wayne Woods arrived at a recreation centre in Somerville last year he found Jarrod Brandson, (pictured) 22, in cardiac arrest. Wayne nominated two bystanders, Janice Lovett and Kerry Winters, for their prompt actions in providing CPR until paramedics arrived.*



*Six year old Jack rang 000 and said: 'Daddy won't wake up.' When paramedic Steven Linham arrived at the scene, Jack's father was unconscious on the floor after suffering a seizure. Jack's call was vital to ensuring a good clinical outcome.*