

2011 Australian Motorcycle Grand Prix

Track Medical Response Plan



**Phillip Island Grand Prix Circuit
October 14 – 16, 2011**

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1 Introduction

This Track Medical Response Plan describes the track medical service for competition during the Australian round of the Motorcycle Grand Prix (MGP) at the Phillip Island Grand Prix Circuit, Phillip Island, Victoria, Australia, October 14 – 16, 2011.

This Track Medical Response Plan meets the requirements of the FIM Medical Code for a Road Racing World Championship.

The Track Medical Service comprise:

- A Track Medical Centre
- Medical Staff, including:
 - Chief Medical Officer (CMO)
 - Deputy CMO
 - Assistant CMO
 - Doctors
 - Nurses
 - Paramedical staff
 - Radiographers
 - Administration staff
 - MIV Drivers
- First Response Posts (Trackposts)
- Medical Intervention Vehicles
- Track Patient Transport Vehicles (Alphas)
- Medical Cars (Medical Car 1 & 2)
- Medical Evacuation Helicopter
- Ambulances

The MGP medical team will provide a 'basic' medical service from approximately 09.00am on Thursday February 24, and a full service from 8.00am on Friday October 14, until approximately 5.00pm Sunday October 16, 2011.

2 The Track Medical Centre

The Track Medical Centre (TMC) is situated at the northern end of the pit area (see Appendix 1).

The TMC will consist of two resuscitation and four observation bays.

The TMC will have direct telephone communication and radio communication with Race Control.

The TMC Staff will consist of (minimum):

- The Assistance Chief Medical Officer (doctor) and Medical Centre Manager (nurse)
- At least one additional doctor with training in Emergency Medicine, Intensive Care, Surgery and/or Anaesthesia
- Five additional nurses with certification in Emergency and/or Critical Care Nursing
- Two administration staff
- One radiographer

The TMC will accept:

- Riders brought by Track Alphas, MIVs, sent by Race Control, or self-referred
- Team members or Track Officials with injuries/illness
- Authorised persons with injuries/illness

Spectators:

Members of the public will be referred to a St John first-aid post in the spectator areas unless otherwise agreed between the EOC and the CMO.

3 The Medical Team

Chief Medical Officer (CMO)

The CMO will have the following responsibilities:

- Organisation and operation of the track medical service
- To assess the fitness of competitors to take part in events
- To arrange for the transport and treatment of all casualties resulting from track incidents
- To make decisions on the further treatment and transport to hospital of casualties, as appropriate
- To complete the documentation for each casualty and pass these to the Secretary of the Meeting on the same day
- To advise the Clerk of Course on the placement of emergency vehicles and medical posts at the circuit
- To advise the Clerk of Course on the appropriate medical response to competitors who may be injured during practice and racing
- To attend serious or potentially serious incidents
- To liaise with the Medical Director, and Race Director
- To advise the Race Organising Committee on equipment and facilities required in the TMC and medical vehicles
- To remain in direct contact with Race Control and TMC at all times during the meeting

Doctors

There will be 10 doctors on the medical team (minimum):

- CMO, DCMO, ACOMO
- Medical Car 1
- MIV2
- Type B Alphas (Alpha1, 6, 9, 11)
- One additional doctor in the TMC

These doctors will have training and experience in Emergency Medicine, Intensive Care, Surgery, Anaesthesia, and General Practice. The doctor assigned to the helicopter will have experience in aeromedical evacuation.

Medical Seniors

Medic 1 will be a paramedic with extensive motor sports experience. Their role includes:

- Ongoing training and support of the Medical Team (Track Posts and Track Alphas)
- Staffing SIV 9 (including providing an emergency response during international races (at Turn 9) as directed by Race Control)

Medic 2 will be a paramedic with extensive motor sports experience. Their role includes:

- Ongoing training and support of the Medical Team (Track Posts and Track Alphas)
- Staffing SIV 4 (including providing an emergency response during international races (at Turn 4/5) as directed by Race Control)

Medic 3 will be a senior medical official with extensive motor sports experience. Their role includes:

- Ongoing training and support of the Medical Team (Track Posts and Track Alphas)
- Staffing SIV 9 with Medic 1

Track Medical Centre Nurses

There will be 6 designated TMC Nurses in the team, inclusive of the Medical Centre Manager (MCM). Of these, there will be a nurse allocated to Medical Car 1, 2, and Pit Lane. There will be at least 3 on duty at all times in the TMC. The role of the TMC nurses will be:

- To triage patients as they arrive at the TMC
- To prepare resuscitation equipment
- To assist the doctors with patient management

Medical Equipment Officer:

There will be one appropriately qualified person allocated as Medical Equipment Officer with the following roles:

- Ensure Track Post equipment is complete
- Ensure vehicles are equipped
- Ensure equipment is returned at the end of each day
- Ensure equipment container is completely restocked at the end of the meeting

Radiographer

There will be at least one radiographer in the TMC. The role of the radiographer will be:

- To prepare X-ray equipment for use at the TMC
- To provide X-rays as requested by medical staff

Track Posts

There will be 16 full time track posts strategically placed around the circuit that will each be staffed by a minimum of two paramedical officials (Paramedic, Nurse, or First-aider).

The deployment positions are shown in Appendix 1.

The Track Post staff will be trained and equipped to provide immediate first-aid to an injured rider.

When an incident occurs, the track post staff will respond immediately, maintaining communication with RC. A response time of **thirty seconds** is desired.

The primary aim of the track post staff is to safely remove the rider and themselves from the track (this includes the run-off area) to a safe position behind the tyre-wall.

A spineboard and cervical collar should be carried to the scene. The Medical equipment box will not usually be required on the track and should be left behind the tyre-wall (away from the crowd) at the point of entry onto and exit from the track.

Track post staff should respond in synergy with other track marshals and put their own, personal safety first. The other track marshals may set up hay bale barriers as necessary and can be asked for assistance with the care or transport of a rider off the track.

- The 'track' refers to the actual race-track bitumen, as well as the run off-areas (where most fallen riders and their bikes end up)
- 'Off the track' implies any area away from the track, behind the safety tyre walls
- The point of entry and exit from the track should be the closest point from the tyre wall to the incident scene (i.e. Track post staff should proceed along **behind** the tyre wall for as long as is practicable, and enter the track perpendicularly)

Medical Cars and Medical Intervention Vehicle (MIV) Drivers

The Medical Cars 1, 2, and the three Medical Intervention Vehicles (FIM Vehicle Type A) will each be driven by a person with appropriate circuit experience.

All Alpha Transport Vehicles, Medical Car and MIV drivers will be briefed by the CMO (or delegate) and have a working knowledge of all service roads, entry and exit points from the racetrack.

FIM Medical Response Guidelines:

- Phase One:** Fast intervention on the track or in the run off area
- Phase Two:** Transfer to the Medical Centre
- Phase Three:** Track Medical Centre
- Phase Four:** Transfer to Hospital

Phase One Communication Guidelines:

Race Control requires the following information:

1. Incident location

Incident location should be given as the turn number followed by which side of the track (orientated to the rider) the rider has fallen (see examples below)

2. Phase One Response Codes

- Code 0:** No medical intervention required
Rider gets up unassisted
- Code 1:** Short Rescue
Rider able to walk with assistance
Rider will be cleared from scene in < 1 minute
- Code 2:** Long Rescue
Rider requires stretcher
Rider will be cleared from scene in 1-3 minutes
- Code 3:** Prolonged Rescue
Rider seriously injured
Rider requires spineboard
Rescue will take longer than 3 minutes

3. Additional information (if relevant)

Additional information required by the CMO in Race Control **if rider is not moving**:

Consciousness	Rider conscious OR not conscious
Respiration	Rider is breathing OR not breathing

On the advice of the initial assessment of any injuries, Race Control may dispatch an MIV, Medical Car 1 and/or a Track Alpha vehicle to the scene.

Examples for the above:

E.G. 1: A rider falls at Turn 8 and gets up unaided

If the rider is a Code 0 and you do not need to move track side, wait until the radio is clear prior to transmitting this information, and preferably with the rider's number"

"Race Control from Track 8"

"Go ahead Track 8"

"Bike #12 down Turn 8, rider's left...Code 0"

E.G. 2: A rider falls at Turn 2 exit and crawls towards the tyre wall

If you need to move onto the track – call through:

"Race control from Track 2A. Rider down rider's right...Code 1, possibly Code 2. We're responding."

E.G. 3: A rider falls at Turn 12 and lies on the grass, not moving

In this scenario, you should take priority bearing in mind any preceding incident.

"Race control from Track 12. Rider down Turn 12, rider's right...Code 3...Rider not moving."

"Rider unconscious...Rider not breathing"

All personnel should be listening to their radios to be able to prioritise their calls. I.e. if there is already a Code 3 response, other personnel should hold off calling Code 0 responses until the channel is clear.

Communications Infrastructure

The medical communications will occur on a separate Medical Channel, coordinated by the Medical Communicator from Race Control. The Medical Communicator will coordinate all transmissions on this channel.

All communications should be directed to and from Race Control – not between other personnel.

There will also be direct telephone communication between Race Control and the Medical Centre.

The Medical Team will also be operating a secondary 'Seniors' Channel. Each medical team senior, Type A and B vehicles will have a 'Seniors' radio. This secondary channel will be used to coordinate the medical team without the need to use the main medical 'Race Control' channel.

4 Medical Vehicles

Medical Intervention Vehicles (MIVs)

There will be 3 MIVs around the circuit placed as shown in Appendix 1. These will be four-door vehicles capable of rapid response to a racing incident, as directed by Race Control.

The vehicles (MIV 2, 4 & 9) will carry:

- A Driver, with headset communication to Race Control
- A Doctor
- A Paramedical officer

Portable equipment will include:

- Oxygen
- Equipment for airway/IV infusion
- Monitor/defibrillator
- A Resuscitation box (drugs equipment for airway and shock management)
- A Trauma pack (dressings)
- Scoop stretcher

MIV 2 will be positioned at Turn 2.1 (riders right), and can respond to incidents from the Straight to Turn 3 (riders right). MIV 2 should not usually need to enter the racetrack.

MIV 4 and 9 will have a dual role. These MIVs will be used as a support vehicle for the medical team throughout the event (Infield and Outfield respectively). During the races, they will then function as MIVs.

MIV 4 will be positioned at Turn 4 (Riders left/infield). MIV 9 will be positioned at Turn 9 (Riders right/outfield). Medic 1 and 3, and Medic 2 will be in MIV 9 and 4 respectively.

An MIV will respond (when directed by Race Control) to riders who have the potential for serious injuries. The desired response time (from rider fall to MIV arrival) is one minute. The team and equipment will remain with the patient and the MIV will immediately move to a safe position without entering onto the racetrack (unless there is a Red Flag / Code Red incident). All vehicle responses will only occur with direction from Race Control.

At the scene of the incident, the Doctor will assume full responsibility for patient management.

When an MIV is placed on "standby", the crew will be seated and belted-up in the MIV. The engine will be running (**No Beacons**). All MIVs will be on "standby" at the start of each race, for the first three laps. And when instructed to by RC.

Track Alpha Transport Vehicles (FIM Vehicle Type C)

There will be 4 Type C Track Alphas placed on the circuit (as shown in Appendix 1) to provide transport for riders who have been injured, following assessment by Ground Post staff and/or the Doctor on an MIV. These Track Alphas will only respond on the direction of Race Control.

The Track Alphas will carry:

- Two Paramedical staff
- Oxygen, Stretcher and BLS Equipment

Track Alpha Transport Vehicles (FIM Vehicle Type B)

There will be 4 Type B Track Alphas placed on the circuit (as shown in Appendix 1). Each Type B vehicle will be staffed by 4 officials including (at least) one doctor.

These points will function as both first responders and transport for riders who have been injured. The staffing allows the vehicle to be responded to other areas leaving behind a track post of two officials.

These Track Alphas will also only respond on the direction of Race Control.

The Track Alphas will carry:

- Three Paramedical staff
- One doctor
- Oxygen
- Equipment for airway/IV infusion
- Monitor/defibrillator
- A Resuscitation box (drugs equipment for airway and shock management)
- A Trauma pack (dressings)

- Scoop stretcher & spineboard

In all cases, the Track Alphas (both Type C & B) will travel to the scene off the circuit (via internal or external roads) to the nearest access point. The patient will be brought to the Track Alpha on a spineboard. The patient will be transported to the TMC off the circuit (via internal or external roads).

Following a Red Flag incident, the track alpha may be required to enter the circuit, but **ONLY as directed by the Race Control.**

Track Medical Centre Ambulances (FIM Vehicle Type B)

There will be two ambulance type vehicles based at the TMC. These will transport patients from the TMC to the designated receiving hospital (Phase Four), as directed by the CMO or MCD. These vehicles – Ambulance Victoria (AV) ambulances - will be licensed to transport patients on public roads.

Medical Car 1

This vehicle will be a high performance 4-door sedan. It will carry:

- One Doctor (with head-set)
- One Paramedical Officer (with head-set)
- One Driver (with headset)

Portable equipment will include:

- Oxygen
- A comprehensive drug/resuscitation kit
- Trauma kit
- Fold up stretcher

Medical Car 1 will follow the motorcycles at the start of each National race, exiting the circuit at Pit Entry, then return to the Pit Exit area, and from there be available for rapid response.

This vehicle may respond to incidents on the first lap (see Start Protocol). In addition, this vehicle may attend any serious incidents, as a backup to the MIVs (as directed by Race Control).

Medical Car 2

This vehicle will be a high performance 4-door sedan, equipped as per Medical Car 1. This car is used:

- For course inspections, with the FIM appointed Medical Director
- As a backup for Medical Car 1, in case of concurrent serious incidents
- To replace Medical Car 1, in case of mechanical breakdown
- For transport of the CMO between the Medical Centre and the Control Tower
- To respond to the scene of serious incidents, with the FIM Medical Director (if requested)
- Warm-up lap chase vehicle

After the warm-up lap, it will exit the track via the Turn 4 exit. For the international races, it will position itself at Turn 10 (Riders Left) as directed by Race Control.

Response to Incidents during the First Lap of National races:

If a rider falls and is getting to their feet, Medical Car 1 should not stop. If a rider falls and is not able to move away from a potentially hazardous area because of injury, Medical Car 1 may stop (remaining on the racetrack surface). The chase team will move on foot to quickly assess the patient. **The Medical Car should then move to the nearest exit from the circuit.**

The following are guidelines for further management:

Rider unconscious: The Doctor and paramedic will remain with patient and provide initial assistance. The closest Track post or Track Alpha crew will also respond. The most appropriate MIV would also be dispatched by race control

Rider conscious but unable to walk: a spineboard (from the nearest Track Post) will be immediately used to transfer the rider to a safe position, and a track alpha will be called to the scene.

Rider conscious and now able to walk: the rider will be immediately assisted off the track for assessment by trackside personnel. The doctor will move with the rider to a position of safety.

Thus, there should be minimal possibility that Medical Car 1 will be caught by the bikes on their second lap, but if so, it will immediately pull off the circuit in a safe position and wait until the field has passed. In the event of a Red Flag incident, Medical Car 1 **may remain** on the racetrack, at the scene of the incident.

Response to Incidents during the First Lap of International races:

The Dorna Safety Cars will follow the first lap of the International races. These vehicles are not staffed with medical team personnel. The Medical Cars & MIVs will be on standby for the first three laps of the race.

For start line incidences, the first response will be provided by the pit lane crew and Medical Car 1 crew. Both will respond onto the main straight (via the blue gate) only when the race is stopped (Red Flagged). Fallen riders are to be brought back into pit lane (either walking or via spineboard). If an ambulance transfer to the TMC is required, Race Control will direct either an AV ambulance, or Alpha 4 to rendezvous with the responding crews in the Race Control tower car park. In the unlikely event that an ambulance is required on track, Alpha 8, 4, or 1 will be deployed as directed by Race Control.

For all races:

There should be radio silence during the first lap of all races.

Medical Evacuation Helicopter

The helicopter will be used to transport patients to the designated receiving hospital, as directed by the CMO or ACOMO.

The Helicopter will be based next to the TMC on an area prepared for the safe arrival and departure of the helicopter. There will be provision on the helipad for a second helicopter at the TMC. The helipad will be constructed such that a helicopter is able to take off and land whilst motorcycles are on the circuit.

DORNA BMW Safety Cars

The Dorna BMW Safety Cars (supplied by the Promoter) will be used at the start of the International races.

Following their lap, they will not be used for any medical responses.

5 Receiving Hospitals

The major designated trauma hospital will be The Alfred Hospital. This hospital provides the following services:

- Onsite Helipad
- A major Emergency Department service with a responsive Trauma Team
- Radiology, including MRI, CT scan and Angiography
- Immediate availability of Surgical Specialties, including:
 - Trauma (General) Surgery
 - Neurosurgery
 - Cardiothoracic surgery
 - Orthopaedic surgery
 - Plastic surgery
 - Vascular surgery
 - Burns
- Emergency Operating Theatres
- Level 3 Intensive Care Unit

The receiving hospital for other, non-urgent transfers will be Dandenong Hospital. This hospital is on the outskirts of Melbourne, one hour's drive from the Phillip Island Circuit.

6. Clinica Mobile

Dr Claudio Macchiagodena is the appointed MGP Medical Director. He and his Clinica Mobile staff travel to all MGP events. They provide a valuable, alternate medical service to riders, but rider fitness to race remains under the governance of the CMO and Medical Director. Riders who request treatment by the staff of Clinica Mobile will receive every assistance to facilitate this.

7. Training / Auditing

The goal of the medical team is to provide a comprehensive medical service of the highest possible standard.

In order for the team to operate at the highest standard, the following is undertaken:

- A copy of the Track Medical Response Plan will be given to all Doctors, TMC Nurses, MIV Drivers
- Copies of the Track Medical Response Plan will be made available to all other staff
- The CMO and senior medical officials will conduct the following training sessions:
 - A general briefing session at 19:30pm on (date to be confirmed). This is compulsory for all Medical Team members
 - A track craft and safety session will also be held from 18:30pm on the same day. All medical team officials are invited and is compulsory for all new officials
 - On track training for all emergency vehicle drivers and new personnel
- General and task specific briefing sessions will be held for all staff, each morning Friday – Sunday
- Debriefing with all relevant staff following any incident
- A 'continuous quality improvement' model for operations
- The CMO will provide details of other events where further experience can be obtained

8. Management of a Serious Injury

The indication(s) that an injury is immediately life threatening includes any of:

- Absent or minimal respirations, requiring immediate definitive airway management
- Absent carotid pulse
- Deep coma (i.e. unresponsive to painful stimuli)

On advice to the CMO and CoC from the medical team at the scene that a competitor has the above signs, the following protocol will apply:

Race Control

- Yellow or Red flags, as appropriate;
- Notification and mobilisation of nearest MIV and Medical Car 1 to the scene;
- Notification and mobilisation of the nearest Track Alpha to the scene;
- Notification of the TMC (including the helicopter crew and AV crews).
- Notification of EOC, a two stage process:
 1. **Medical Alert** (Possible critical incident)
 2. **Critical Incident** (Real / Actual)

At the Scene (Phase 1 – 2)

- Helmet removal
- Immediate definitive airway management (intubation and assisted ventilation)
- Cardiopulmonary resuscitation (as required)
- Immobilisation of the spinal column
- Prompt transfer into a Track Alpha and transport to the TMC (with CPR if required)
- Attendance at the scene by the Course Marshal, CoC and CMO

In the Track Medical Centre (Phase 3)

- Maximum resuscitation efforts
- Notification of the receiving hospital
- Transfer to the receiving hospital by the appropriate means

The Team Doctor (if present), immediate family and ONE other member of the team will be admitted to the TMC, all others (i.e. media) will be excluded by security. The Team Doctor may provide advice and assistance to the TMC staff; however, responsibility for patient management rests with the ACMO or his delegate. The ACMO will advise Race Control of the condition of the rider. **No members of the medical team are to release any information relating to injured riders/officials.**

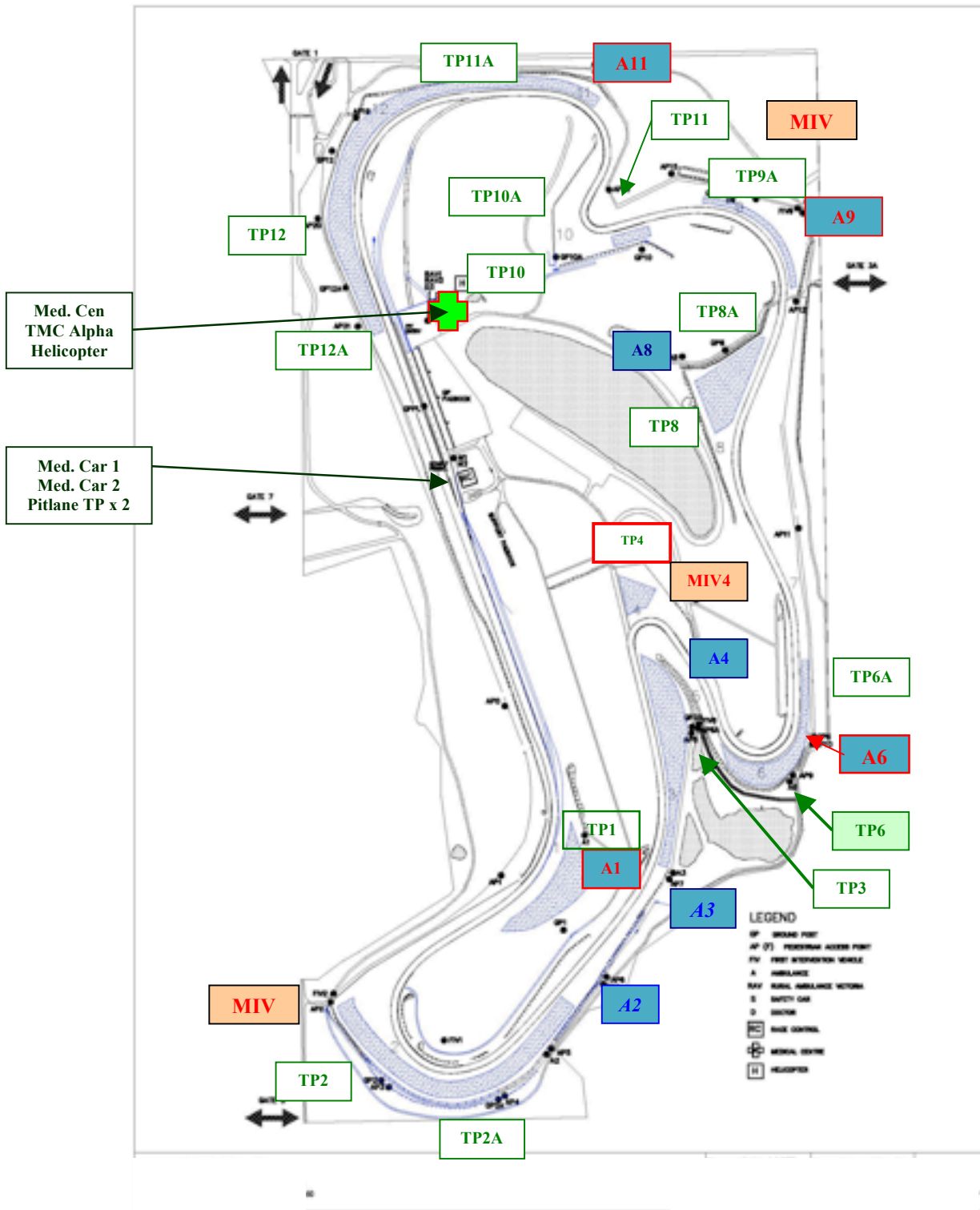
Critical Incident

If the CMO determines that the casualty has a serious and potentially life-threatening injury he will declare a "Critical Incident". This will trigger a response involving a range of agencies including Motorcycling Australia and Victoria Police.

In the event of a serious injury that in the opinion of the CMO has the potential to become a Critical Incident, the CMO shall declare a "Medical Alert". This shall act as a signal for all parties to stand by for possible implementation of the Critical Incident response.

9. Appendices:

Appendix 1 *Medical Team positions*



Appendix 2 *Medical Team Equipment*

TO BE SUPPLIED BY THE EVENT ORGANISER:

MEDICAL INTERVENTION VEHICLES

- 3 MIVs equipped with Beacons and signed: 'Medical Intervention'

MEDICAL CAR 1 and MEDICAL CAR 2

- 2 high performance 4-door Sedans with Beacons signed: 'Medical Car 1 / 2'

TRANSPORT AMBULANCES AT MEDICAL CENTRE

- 2 ambulance vehicles on Friday, Saturday and Sunday

TRACK ALPHAS

- 7 unstaffed Track Alphas

HELICOPTER

- Equipped for medical evacuation
- Able to carry one stretcher and 2-3 attendants
- Facility for the safe carriage of oxygen, monitoring equipment and resuscitation boxes.

TRACK MEDICAL CENTRE

- Refrigerator, Television monitor (CCTV) (x2)
- Photocopier with consumables
- Telephone, fax and Internet
- Trauma trolleys (x3), Patient beds (x2), Trestle Tables (x3)

COMMUNICATIONS EQUIPMENT

- Base station in Race Control
- Radios with head sets and without head sets

INSURANCE

- \$120,000 insurance cover for medical equipment at the Circuit

ACCOMMODATION

- Accommodation will be required for 3+ nights for the medical team
- Lunches and one guest pass for each member of the team
- Uniforms (in medical team colours)

EQUIPMENT FROM THE AGPC MEDICAL CONTAINER

- Resuscitation boxes x 7
- Trauma boxes x 7
- Trackside Medical Kits x 18
- Scoop stretchers x 11

EQUIPMENT FROM PI OPERATIONS

- Spineboards x 12

EQUIPMENT TO BE SUPPLIED BY TEAM MEDICAL AUSTRALIA

All of the following equipment is obtained through Team Medical Australia Inc.

Team Medical Australia sources the equipment from its network of sponsors and suppliers including:

- Philips Medical
- Sonosite
- Agfa Radiology
- Frankston Hospital
- Knox Private Hospital
- The Reece Bancell Memorial Association

Medical Centre equipment:

- Portable monitors for Medical Centre (x 2)
- Lifepak 12 monitor defibrillator (x 1)
- Oxylog ventilators (x 2)
- Laerdal Suction Unit (x 3)
- MicroMaxx portable ultrasound machine (x 1)
- X-ray machine
- Agfa digital X-ray developer

Other Equipment:

- Automatic Defibrillators (x4)
- Spineboards (x 7)