APPENDIX "L"
MEDICAL CODE

1. GENERAL INTRODUCTION

The Medical Code contains the **minimum** Medical standards that will be enforced at motorsport events.

The Protocols documented in this Code are aimed at Medical Personnel who are involved in providing medical services at motorsport events. Any queries regarding requirements at events must be referred to the Medical Panel. ***All reference to days, includes weekends.***

2. OBJECTIVES OF THE MEDICAL PANEL

i) The Medical Panel is a specialist panel which has, as its' mission statement, the objective of ensuring the safety from a medical perspective and assisting motorsport competitors, event organisers and promoters and officials, particularly Clerks of Course, in accessing and providing the most professional emergency medical services for every competitor, official or spectator at every motorsport venue and event held under an MSA permit. This will be achieved by constant review of International and motorsport Emergency Medical Protocols and strict enforcement of the Protocols published in this code.

ii) The Medical Panel condemns all unlicensed and illegal categories of motorsport totally and without exception.

iii) If the Medical requirements are unattainable and unaffordable by the organisers of events, the President of the Medical Panel reserves the right to waive certain stated conditions if, in the President's opinion, such a waiver is in the interest of fostering and developing motorsport without endangering the safety of competitors and officials. If there is a reason to reduce requirements it must be motivated in writing to Head Office who will in turn liaise with the regional representative and President. Each application will be assessed on its' own merits.

iv) The Medical Panel doctor(s) are responsible for assessing licence applications from competitors with known medical conditions, and applying the protocols contained in this code in passing a decision on medical fitness to compete. In the event that a condition has not been specifically detailed, specialist medical opinion may be requested and obtained and international standards will be applied.

3. MSA CATEGORIES

The various categories of motorsport all have different Medical requirements which must be catered for. The following sporting categories are:

i) Circuit Motorcycles
ii) Circuit Cars
iii) Karting
iv) Cross Country Cars & Motorcycles
v) 4 x4 X-Track
vi) Enduro & Quads
vii) Motocross
viii) Rally
viiii) Oval Racing
x) Drag Racing
xi) Spinning & Drifting

In addition, other Specialist Panels exist, namely

i) Women's Panel
ii) Environmental Panel

4. THE MEDICAL CODE

i) Through experience gained by various Medical professionals on a global basis and by constant review of international motorsport Medical Protocols, a system of minimum Medical standards has been created, which are contained in the MSA Medical Code. It must be stressed strongly that they are practical protocols and not unproven theory. The Medical Panel accepts the requirements of the Safety at Sports and Recreational Events Act, (Act 2 of 2010), the South African National Standard – Health and Safety at Events (SANS 10366) and the National Emergency Medical Services regulations (2015) and will ensure the implementation thereof during events.

ii) It remains the responsibility of the organiser of each and every motorsport event held under a MSA permit to ensure in conjunction with the appointed Clerk of the Course (CoC) and the Chief Medical Officer or Co-ordinator (CMO/CMC), to provide Professional Emergency Medical services adequate in number of personnel and vehicles, for the category of motorsport and the number of competing participants and anticipated spectators.

iii) Failure of an organiser to comply with the minimal medical requirements for an event, immaterial of ignorance of the regulations or wilful disregard of the requirements, will result in the CMO/CMC taking immediate corrective action or declaring the venue as unfit for competition, should corrective action be impossible or corrective action not be instituted timeously.

iv) All changes to the Medical Code resulting from changes in International Medical Protocols or changes in the Medical Codes of the FIA and FIM or the changes in local legal requirements will be incorporated in Appendix L annually. Should Protocols need to change more urgently, these changes will be published via an official MSA E-Newsletter or by way of a National Circular.

v) As a prerequisite of maintaining the highest standards of safety and medical professionalism for all competitors, officials and spectators, the CMO/CMC appointed for the event shall have the right to prohibit a competitor or official from participating in or doing duty at an event for the following reasons:

   a) If, in the opinion of the CMO/CMC, the actions, behaviour or professional conduct of a member of the operational Medical staff is considered to be detrimental to the physical or mental welfare of an ill or injured competitor or official, or to be damaging to the image of MSA or of the medical, paramedic or nursing professions.

   b) If a competitor or official is known or suspected of suffering currently or having previously suffered from a medical condition which could result in the lives of other competitors, officials or spectators being endangered? This will include conditions which could affect levels of consciousness e.g. Diabetes, hearing problems with associated dizziness and certain medications.

   c) If a competitor fails to undergo a medical examination after an injury requiring medical attention or who is not passed as being completely recovered by his medical attendant, or who refuses or fails a Special Medical Examination conducted at the event by a CMO/CMC.

   d) For the use of alcohol by competitors, team members, service crews, officials or marshals either immediately before or during a motorsport event (refer GCR 113, GCR 150, GCR 172 and GCR282).

   e) For the documented use of prohibited substances or methods either immediately before or during a motorsport event (refer MSA Anti-Doping Code).

   f) If a competitor or official's attitude or behaviour is deemed to possibly endanger the physical or psychological wellbeing or safety of competitors, officials or spectators, or the ability of a competitor to participate freely.

vi) If, in the opinion of the CMO/ CMC, a competitor or official is suspected or found to be in breach of or found to be guilty of transgressing the above regulations, the CMO/CMC is required to notify the CoC in writing of the decision to exclude the competitor or official on medical grounds. The competitor or official affected by the decision of the CMO/CMC has the right of appeal to the Medical Panel. The Medical Panel reserves the right to request an MSA enquiry.

vii) Medical personnel contracted to provide medical services at motorsport events who provide an inadequate, unprofessional or negligent service, or who provide a service different from or inferior to the contracted service or who downgrade either the

number or level of vehicles or personnel during an event, will be required to attend a Medical Panel enquiry and will be referred to statutory professional bodies such as HPCSA where applicable.

viii) **The decisions taken by the CMO/CMC appointed for a motorsport event with regard to any medical matter, including fitness to compete, is final and may not be debated, altered by any competitor, official or medical practitioner. In the event that the decision of the CMO/CMC is challenged, a protest may be lodged with the Medical Panel.**

5. MSA ANTI-DOPING

Using drugs to enhance performance is against the rules laid down by the governing bodies of most recognized sports. It damages the image and value of the sport, and contravenes the fundamental principles of sportsmanship and fair competition.
It is the responsibility of all competitors and officials to ensure at all times that they are aware of what they put into their bodies. No exceptions to the rules will be tolerated.

i) MSA will not condone the use of any substance identified on the WADA and/or any other prohibited list, unless a Therapeutic Use Exemption (TUE) has been issued by SAIDS and/or the relevant International Controlling body.

ii) Full details of doping regulations are contained in the MSA Anti-Doping Code which is contained elsewhere in this book.

iii) Sporting commissions are requested to consult with the Medical Panel (through the Medical Coordinator and Operations Manager) with a view to regular anti-doping testing and initiating doping prevention programmes in their individual categories.

iv) Suspicion of competitors using prohibited substances should be communicated to the Medical Coordinator at MSA – medical@motorsport.co.za

v) Any competitor found guilty of a doping offence will face penalties in line with WADA and/or SAIDS.

vi) A link to the WADA and SAIDS websites is available via the MSA Website.

vii) It is important to note that SAIDS can conduct Anti-doping tests at anytime without advising MSA.

vii) Should a competitor not be sure of a substance they are taking it is their responsibility to contact MSA and/or the relevant authorities to confirm whether the substance is acceptable or not. **Ignorance of the rules is not an excuse, all competitors are responsible for what goes into their bodies.**

6. THE DUTIES AND RESPONSIBILITIES OF THE MEDICAL PANEL

i) The Memorandum of Incorporation (MOI) and the MSA Internal Regulations allow for the appointment of specialist panels by which the Medical Panel is constituted.

ii) The Medical Panel is responsible for:
   a) The annual review and updating of the Medical Code.
   b) The institution of minimum medical standards for all categories of motorsport and the enforcing of these standards. This will be achieved by:
      i) Scrutiny of Medical Compliance Forms;
      ii) Scrutiny of Accident Statistics Forms and associated documents;
      iii) The weekly production of the injury registry;
      iv) Inspection of circuits - both initial inspections and annual reviews.
   c) Attendance at enquiries where Medical/Safety issues are involved.
   d) Research projects.
   e) The compilation of Official Medical documents – Medical Compliance Form, Accident Statistics Form, Special Medical Examination Form, Patient Report Forms and Competitor Self Discharge Form.
   f) Medical Homologation of Circuits and Venues in conjunction with the relevant Sporting Categories and Sporting Services Manager. The National Medical Panel meets 1-2 times annually if necessary; however the second meeting could be conducted via Skye or conference call.

7. NATIONAL MEDICAL DUTIES

i) The National Medical office is located in Roodepoort, Gauteng.

ii) The duties and responsibilities of the national office are:
   a) Periodic review of the MSA Anti-Doping Code and annual publishing of the WADA list of prohibited substances;

b) Review and introduction of all new policies originating from the Medical Panels of the FIA and FIM. Liaison with FIM Africa and other ASNs and FMNs.
c) Selection of events for Drug and Alcohol Testing in conjunction with the Medical Panel President, Operations Manager and Medical Coordinator
d) Compilation of the weekly injury registry which is distributed by the Medical co-ordinator.
e) Approval of National Medical Compliance Forms.
f) Approval of all Medical Compliance Forms where the service provider is a member of the Medical Panel.
g) Stimulation of interested disabled persons to be involved in motorsport as both administrators and competitors in certain motorsport categories.
h) The convening of Medical Seminars for specific regions.
j) The convening of investigations into the passage of events and circumstances of Fatal Accidents.
k) Involvement in all motorsport events with potential or actual international involvement from the pre-event planning stages until the conclusion of the post-event debriefing processes.

8. REGIONAL MEDICAL COMMITTEES

i) The Chairmen of medical committees of the various MSA regions are automatically members of the National Medical Panel and are tasked to deal with day to day medical affairs in their regions.
ii) The names of Medical Personnel who have successfully completed a seminar and examination must be submitted to regional organisers via the Medical Coordinator.
iii) The Regional Medical Chairmen are required to conduct inspections of all Circuits and Venues and submit Medical Homologation Forms.
iv) Their responsibilities further include:
    a) Ensuring that Medical Safety issues are complied with at all events.
    b) The checking and approval or rejection of all Medical Compliance Forms submitted for Regional and Club events (ensuring that the Medical coordinator is copied on all medical compliances approved or rejected).
    Note: Where the service provider is a member of the Medical Panel the Medical Compliance forms are to be submitted to the Medical coordinator for approval or rejection.
    c) Ensuring that correctly completed documentation (as per 6f above) reaches MSA Head Office timeously.
    d) Attending MSA Regional meetings or if this is not possible to submit a monthly Medical Report for the meetings not in attendance.
    e) Submitting Reports of Regional Medical Committee meetings.
    f) Inspection of all medical service providers involved in MSA sanctioned events, both initially and on an ongoing basis.

9. MANDATORY MSA MEDICAL DOCUMENTATION

i) **General**
    a) All documentation will reflect the year for which it is to be used in the title of the document, with the date of revision, which will be done annually, identified at the top right hand corner of the Form.
    b) Outdated, illegible or incomplete forms will be returned for resubmission. As all documents are available electronically, it is recommended that these are completed by typing in the relevant information.
    c) All MSA Medical Documentation can either be obtained from the Medical coordinator at MSA or downloaded from the MSA website on www.motorsport.co.za.
    d) The CMO/CMC should hand all completed documentation to the race secretary at the end of each event for onward submission to MSA – to be received by 12h00 on the Tuesday following the event.
    e) Illegible, incomplete or late submission of documentation mentioned below may result in a fine being imposed against the club, as it is ultimately the club's responsibility to submit all documentation to MSA.

ii) **The Medical Compliance Form**

a) The Official current MSA Medical Compliance Form is a **Medicolegal** document vital to the legitimate running of a motorsport event. An event that is commenced without an approved Medical Compliance Form occurs outside the regulations of MSA and therefore MSA provisions such as Public Liability and competitor insurance will no longer apply.

b) Medical services may not be downgraded for Official Practices, National, Regional, Club or Social events. These events produce more serious injuries, probably related to inexperience.

c) It is the responsibility of the CMO/CMC appointed for a Motorsport event, utilising their personal knowledge of the circuit and venue, the Medical services guidelines in the Medical Code and the Medical Homologation document as these become available, to complete the Medical Compliance Form for the event.
Although Assistant Medical Coordinators may be tasked to arrange the required vehicles and Medical Personnel, it remains the sole responsibility of the CMO/CMC to **personally** complete and sign the form.

d) The Medical Compliance Form is to be completed by the appointed CMO/CMC and submitted to the event organiser at least 2 weeks before the event. The organiser of the event is responsible for submitting the form to MSA Regional offices or Head office. The absolute final time and date for submission of Medical Compliance Forms is 14h00 on the Tuesday two weeks before the event. Fines ranging from R200 to R1000 may be imposed on organisers who submit late medical compliance forms.

e) Alterations in the number or qualifications of Medical personnel and vehicles compared to the original crews and Ambulances/Response vehicles identified on the submitted Medical Compliance Forms must be submitted to MSA and the CoC immediately. Failure to comply with this requirement may result in the CoC delaying the start of the event until the correct services are in place with suspension of the responsible CMO/CMC.

f) Medical Compliance Forms that are incomplete or illegible will be returned to the organiser for correction before approval. A second sheet of paper must be submitted for large numbers of personnel.

g) A copy of the Medical Compliance Form must be submitted and signed off by the CoC on the day of the event and the signed copy must be submitted to MSA with the Accident Report Form and supporting documentation (refer 6f).

h) Each events requirements will be assessed on their own merits. If there is a reason to reduce requirements it must be motivated in writing and submitted together with the compliance form to MSA head office who will in turn liaise with the regional rep. and President of the Medical Panel.

i) Effective 1st January 2015 Medical Compliance Forms will not be approved by MSA if the service provider is not BHF Registered and cannot produce a BHF Number. The requirements from BHF do apply and Medical Service Providers may not use a BHF Practice number of another company to provide services if such registered company are not present during the event.
The Emergency Medical Regulations (Gazette G38775 RG 10427 dated 8 May 2015) is effective from the date the relevant Provincial Health Department implement the regulations in that province.

iii) **Accident Report Form**

a) Accurate, suspected clinical diagnosis must be entered, which must include the type of injury and the Anatomical Region of body affected.

b) If the competitor does not complain of any symptoms and does not exhibit signs of injury, full details must be entered on the Accident Report Form with a diagnosis of “no injury detected.”

c) The column on whether the competitor is FIT or UNFIT must be completed.

d) This form can be completed by CMO/CMC/Senior AMCs but it must personally be signed by the CMO/CMC for the event.

e) The Accident report form must be returned to MSA regardless of whether there are incidents listed or not.

iv) **Other Documentation**

a) Special Medical Examination Forms, Patient Report Forms, Competitor Self Discharge Forms, and the Attendance register, must also be submitted to the event secretary together with the Accident Statistics Form for submission to MSA. Service Providers cannot change staff members with different qualifications e.g. an ALS must be replaced with ALS etc.

b) It is the responsibility of the Club/Organiser to ensure all documents are submitted to MSA within the time frame mentioned above. It is not MSA's responsibility to follow up with the Service Provider.

10. MEDICAL EXAMINATIONS AND CERTIFICATES

Annual Medical Examinations

i) Every competitor in motorsport must be psychologically and physically healthy and mature enough to control a motor vehicle, kart, motorcycle or quad without endangering the lives of fellow competitors, officials or spectators, whilst preserving their own lives. To assess this state of health, every motorsport competitor must complete the Annual Medical Form and submit the form to MSA, with their annual licence application either in person or via the online licence system.

ii) The Medical Form is valid from 1st January to the 31st December of that calendar year.

iii) Non-disclosure of a serious chronic illness, serious or disabling injury or the consumption of certain chronic medications, if discovered, will result in the immediate cancellation of the competitor's or official's licence.

MEDICAL CERTIFICATES

Competitors are no longer required to produce a Medical Certificate should they not suffer from any medical conditions. However, competitors will be required to fully complete and sign the Medical Form personally, confirming that they do not suffer from epilepsy, chronic diabetes, heart problems, etc. and are fit to participate in motorsport. Non-disclosure of a serious or chronic illness, serious or disabling injury or the consumption of certain chronic medications, will result in the immediate cancellation of the competitor's licence, and any further action MSA may take. Should the form contain incorrect and/or false information, any claims lodged against the competitor will be for his/her direct account and no claims lodged against the Competitor/Official Insurance Policy will be considered in the event of an accident and/or injury and/or fatality.

11. EXCLUDING ILLNESS AND DISABILITIES

i) Certain disabilities and illnesses declared in the competitor's history will, on discovery, automatically exclude the granting of a Medical certificate and motorsport licence pending further investigation. Non declaration by a competitor of an excluding medical condition or disability, could on discovery, exclude that person from all future participation in motorsport in any capacity whatsoever.

a) **Limbs**

aa) A competitor must have sufficient function and control of their Limbs to permit full control of their vehicle at all times. The vehicle may be adapted to allow control of the vehicle by a competitor provided that the adaptation does not create mechanical advantage.

bb) Traumatic amputation of one or both lower Limbs and or one upper Limb at any level will not definitely exclude an applicant from passing the Annual Medical Examination. The applicant may be requested to perform a practical test to demonstrate his/her proficiency in controlling the vehicle and, in the case of motor cars, to exit the car rapidly in the event of an accident.

cc) Surgical amputation of a Limb resulting from vascular damage by a Chronic Medical condition such as Diabetes Mellitus, excludes a competitor from motorsport competition.

dd) Hemiparesis or Hemiplegia – partial or total paralysis of one side of the body resulting from brain injury or illness – will exclude the applicant from obtaining a competitors licence.

ee) Paraplegia results from total or partial permanent damage to the spinal cord below the neck. The permanent paralysis resulting will not exclude the applicant from certain categories of motorsport and a practical test may be requested.

ff) An applicant for a licence who believes that either through the use of a prosthesis or through physical therapy, that they have adequate control of their vehicle, may apply for a practical evaluation.

gg) **Once the competitor has been evaluated and the Medical Panel approves the application, a licence can be issued.**

b) **Vision**

aa) Minimum visual acuity, if necessary corrected by plastic shatterproof lenses or soft contact lenses, must be 6/6 or 10/10 with both eyes open at the time of testing.

bb) The minimum binocular field should measure at least 120 degrees along the horizontal meridian with no defects within the central 20 degrees.

cc) Normal colour vision must be present (not necessary for Trials). If any doubt exists, a simple practical test under conditions similar to those of a race should be conducted.

dd) Double vision or nystagmus will exclude an applicant from obtaining a competitor's licence.

ee) Progressive loss of vision and total loss of vision in both eyes will exclude an applicant from obtaining a competitor's licence.

ff) Acute loss of vision in one eye will exclude the applicant from obtaining a competitors licence for any category of motorsport in the first year of loss of vision.

gg) In the second and third year after sudden loss of vision in one eye, the applicant may be granted a licence for Trials, provided that the vision in the unaffected eye is 6/6 (10/10), distance judgment (stereoscopic vision) is intact and point bb) is met.

hh) A competitor's licence may be issued after acute loss of vision in one eye after the third year for all competitors to compete in all categories if the provisions mentioned in gg) are met.

ii) For points gg) and hh) above:

i) A report from an optometrist and ophthalmologist will be required prior to assessment of such an application.

ii) Double protection (visor and goggles) must be worn at all times while competing.

c) **Deafness**

aa) A licence may be issued to an applicant suffering from all grades of deafness, provided there is no associated disturbance of balance.

bb) A competitor with impaired hearing must be accompanied to the rider or drivers briefing by a person with normal hearing who can communicate information given at the briefing.

cc) It is recommended that a deaf competitor should wear a clearly, visible tag that identifies the competitor as being "hearing impaired" for identification in the event of accident or injury.

d) **Diabetes Mellitus**

aa) It is not considered either desirable or advisable for insulin dependent (Type I) diabetics to compete in all categories of motorsport.

bb) However, a long–standing, well controlled insulin dependent diabetic, who is not subject to episodes of either hypo or hyper – glycaemia and who manifests no clinical evidence of vascular, ophthalmological, renal or neurological damage secondary to the diabetes, may be granted a competitor's licence.

cc) The eligibility of such a competitor to continue participating will depend on the competitor' ability to maintain the health status documented in bb).

Therefore, such a competitor will be required to present annually a report from an endocrinologist or, specialist physician and an

ophthalmologist outlining their state of health and the absence of complications of the disease. This must include biochemical evidence of longstanding, well controlled blood sugar levels (either an HbA1C or Fructosamine blood test, values within normal reference range for the relevant laboratory conducting the test).

dd) Should a diabetic competitor suffer an episode of altered or loss of consciousness caused by an abnormally low or high level of blood sugar during competition, the competitor's licence will be rescinded immediately.

ee) Non-insulin dependent diabetics (Type II) will be assessed in an identical manner.

e) **Cardiovascular Disease**

aa) A history of heart failure, heart valve disease, Ischaemic Heart Disease or other vascular disease, symptomatic angina, Myocardial Infarction or Paroxysmal Arrhythmia will exclude a competitor from obtaining a licence. However, should definitive treatment, including surgery, correct the defect, the competitor may be issued a licence, with the full agreement of the treating Cardiologist and/or Cardiothoracic Surgeon. A licence will not be granted for speed events.

bb) Chronic Arrhythmias, such as atrial fibrillation, which are treated with anti-arrhythmic agents and anticoagulants, will exclude a competitor from both speed and Off–Road events.

cc) Controlled Hypertension, with no clinical evidence of ophthalmological, vascular, cardiac or renal disease, will not exclude a competitor from being issued with a licence. A competitor on treatment for Hypertension will be required, annually, to submit a report from a physician detailing that the hypertension is controlled and uncomplicated. If they are prescribed certain drugs that are on the Anti-Doping Code Prohibited list, such as Beta-Blockers and Diuretics, a Therapeutic Use Exemption (TUE) form is to be submitted to MSA for consideration by the relevant authorities.

dd) Current or new competitors who have undergone coronary artery angioplasty or coronary artery bypass grafting, are required to submit a comprehensive report from the treating cardiologist and/or cardiothoracic surgeon which must state that the competitor has recovered completely and is physically fit enough to participate in non-speed categories of motorsport.

ee) Anticoagulants (e.g. Warfarin, Coumadin) that are prescribed to a competitor in Off Road and Enduro events over long distances, will result in a temporary suspension of the competitors licence until the competitor has been taken off the medication.

ff) Participation whilst on antiplatelet agents (Aspirin, Plavex) that decrease clotting is not recommended in Off Road and Enduro events over long distances, due to the increased likelihood of fatal bleeding and prolonged time to definitive medical care if injured in an accident. It is recommended that the competitor only returns to competitive motorsport once taken off the medication.

gg) Competitors over the age of 50 years are required to submit an effort ECG every 3 years.

f) **Neurological and Psychiatric Disorders**

aa) Applicants who suffer from chronic, degenerative diseases like, Parkinsons disease, Alzheimers disease, Multiple sclerosis and Muscular dystrophies, amongst others, will not be granted a competitors licence.

bb) Applicants with chronic psychiatric illnesses needing permanent medication will not be granted a competitors licence.

cc) Applicants with previous brain tumours, cysts or abscesses which have been treated – refer 28 ix) d) below.

dd) Non-declaration of such illnesses, when discovered, will result in the competitor being immediately excluded from all participation in motorsport, in any capacity for life and may be applied retrospectively to the beginning of the current motorsport season.

g) **Convulsion and Unexpected Loss of Consciousness**

aa) A licence will not be granted to a current or new applicant for a licence who:

aaa) Is diagnosed as suffering from any of the multiple seizure complexes, including epilepsy, although apparently well controlled by chronic medication;

bbb) Has suffered a single epileptic seizure and who is taking no medication;

ccc) Has suffered any episode of unexplained loss of consciousness;

ddd) Has been prescribed anticonvulsant medication after neurosurgery.

eee) The fact that a competitor, suffering from any form of epilepsy or any of the other seizure complexes, has a normal EEG and brain scan (CT or MRI) does not allow for the exclusion to be reversed.

fff) This regulation does not apply to a competitor who suffered febrile convulsions in childhood.

h) **Alcohol and Drug Dependence**

Applicants with a current or previous history of alcohol or substance abuse requiring rehabilitation may not be granted a licence.

i) **Miscellaneous Conditions**

aa) Current or new applicants who have undergone the following procedures in the previous 5 years will not be granted a licence:

aaa) Organ transplantation including cornea, heart, lungs, liver, kidneys or bone marrow;

bbb) Neurosurgery for certain conditions requiring the opening of the meninges including tumours, brain cysts, or extracerebral haemorrhage, increased intracranial pressure;

ccc) Cervical and Lumbar spinal fusion;

eee) Applicants who have undergone the procedures outlined above longer than 5 years before the application will be considered on an individual basis.

bb) Repeated episodes of grade 3 concussion, on more than 2 occasions in one calendar year.

cc) Applicants who have undergone chemotherapy or radiotherapy will not be granted a competitor licence for six months after completing treatment. Receipt of a letter from the treating physician indicating recovery will allow for granting of a competition licence.

k) **Asthma**

Asthma is not an excluding disease. Patients receiving inhaler therapy must submit a standard Therapeutic Use Exemption (TUE) Application, depending on the type of asthma medication they are taking. It is the responsibility of the Competitor to check on the SAIDS Website as some Asthma medication is banned.

12. PROCEDURE IN A CASE OF DOUBT OF MEDICAL FITNESS

i) MSA staff who receive licence applications and have any doubt on reviewing the Medical Form, are requested not to issue a licence until the Examination Form has been reviewed by the Medical Panel.

13. SPECIAL MEDICAL EXAMINATIONS

i) **Special Medical Examinations**

a) If, at any time before or during practice or racing, the appointed Stewards, the Clerk of the Course or the CMO/CMC has any doubt as to the Physical or Psychological fitness of either a competitor to compete or an official to

officiate as expected, they may request that a Special Medical Examination be conducted on the concerned official or competitor.

b) The Special Medical Examination may be conducted by the CMO, a second medical practitioner with Motorsport Medical Experience present at the event, or by the CMC appointed for the event. The CMC conducting the examination is required to notify the President of the Medical Panel telephonically immediately.

c) Should the CMO/CMC deem a competitor unfit to compete, they must complete the relevant form and advise the CoC of same. The CMO/CMC will have the final/overriding decision on the practice/race day. This may however be appealed subsequent to the event, with a view to removing them from the register of unfit competitors.

d) The Special Medical Examination Form which can be obtained from MSA or downloaded from the MSA website on www.motorsport.co.za must be completed and submitted to the CoC.

e) A competitor or official who refuses to undergo a requested Special Medical Examination will be excluded from any further participation in the event and declared an unfit competitor on the event Accident Report Form.

ii) **Unfit Competitors**

A competitor who is injured during an event and who is declared unfit to compete by the appointed CMO/CMC, will be declared an unfit competitor on the event Accident Report Form and may not participate in any event until declared fit to compete by a Medical Doctor and is removed from the injury register.

iii) **MSA Injury Registry**

a) The MSA Injury Registry is compiled weekly from submitted event Accident Report Forms.

b) A competitor whose name appears on the Injury Registry and who is identified as “Unfit Certificate required”, must submit a Medical Certificate from the **treating Medical Practitioner** stating that the competitor has completely recovered and is fit to compete in Motorsport.

c) **Failure to produce the required Medical Certificate timeously will result in the competitor being excluded from the event and losing all points scored on the day until the letter is produced.**

d) **The general principles for the return of an ill or injured competitor to competitive motorsport are to be found in the Medical Code.**

e) **It is the responsibility of the competitor to ensure that they submit a medical certificate indicating that they are fit to compete in motorsport 5 (five) working days before the start of the event, sending it to MSA Head Office for review and processing. It is the responsibility of the competitor to check the Injury register and ensure that MSA receives their letter timeously.**

f) MSA sends the injury register to all competitors on the injury register via e-mail and all clubs also receive a copy of the list.

iv) **Refusal To Undergo A Medical Examination And Accept Medical Advice.**

a) A competitor who is injured during practice or a race and who either refuses medical attention at the point where injury occurred or at the venue Medical Centre is required to complete the Competitor Self Discharge form which can be obtained from MSA.

b) Should the competitor refuse to sign the form, the competitor must be informed that refusal revokes any possible future action against any official, service provider, organiser, promoter or MSA and their insurers.

c) A copy of the said refusal form must be submitted to the CoC.

d) The competitor will be excluded from the event resulting in any scores attained during the event being removed and will not be covered by the MSA Insurance.

14. IDENTIFICATION OF COMPETITORS

It is important that all competitors and officials have, at all times, appropriate identification on their persons. This is of particular importance with regard to dope testing and cross border events, as well as for admittance to hospital in the case of injuries.

15. MEDICAL SERVICE AT EVENTS

i) The treatment of acute illnesses and injuries sustained by competitors or officials either during or immediately after practice or racing is free of charge to the competitor or official.

ii) Competitors or officials who request treatment for pre-existing conditions may, at the discretion of the treating medical personnel, be charged for Medical Services.

iii) The cost of transport of an ill or injured competitor or official from the venue to an appropriate hospital is the responsibility of the individual concerned.

iv) Injured or ill spectators at Motorsport events may, at the discretion of the Medical Services, be charged for medical services at the event. The cost of transport from the venue to an appropriate hospital by ambulance is the responsibility of the spectator or the spectator's family.

v) The method of transport of injured competitors, officials or spectators will be determined by the treating medical personnel and will depend on the type and severity of the injuries. This may require the use of a helicopter at very high cost.

vi) The same medical requirements for Official Practice and the Official Race day must be provided for all MSA Events. Official Practice has the same dangers and in cases than Race Day. Failure to adhere to this requirement could result in the Public Liability and Competitor Insurance not paying out in the event of a claim.

vii) The Medical Services contracted, in writing, for a motorsport event must:

a) Guarantee medical assistance to every competitor, official, employee or spectator injured or taken ill during or immediately after the event.

b) Guarantee that they will not alter the medical services identified on the Medical Compliance Form approved for the event unless the changes have been notified to and approved by MSA.

c) Guarantee that they will not reduce the number or qualification of operational medical personnel contracted for the event before or during the event.

d) Guarantee that they will not downgrade the status of Ambulances or other medical vehicles contracted for the event

e) Action will be taken against services perpetrating such defaults.

viii) **The CMO/CMC and every individual member of the medical services operational at any motorsport event are not, under any circumstances, authorised to divulge any information or make any statements to any Third Party, with the exception of the ill or injured competitor's immediate relatives or service crew. All members of all branches of the Media must be referred to the CoC for comment.**

ix) Medical services designated as appropriate for an event must be available continuously and unaltered during the course of the event.

a) Medical services are required to be at their designated areas of operation one hour before the commencement of the event and will remain in place for a minimum of 30 minutes after completion of the final event of the day. Any proposed changes to this protocol must be discussed and agreed upon by the CoC and the CMO/CMC.

b) For Circuit racing, when there is a gap during practice or racing, operational medical personnel may leave their points of deployment but must return at least 15 minutes before the resumption of practice or racing.

c) For Non-Circuit events, particularly Off Road Car and Motorcycle events, medical personnel who have completed their duties on a specific stage of the event may stand down until required to perform duties on a subsequent stage.

x) The organisers of motorsport events are required to sign a contract with a medical service provider to provide the medical personnel and vehicles as designated by the CMO/CMC as appropriate for that particular motorsport event.

a) Such contract should be in writing and it recommended that a copy be submitted to the CoC of the event, signed by both organiser and medical provider. Unrealistic or exorbitant quotations must be submitted to the Medical Panel.

b) Altered or Reduced Medical Services either in the number of personnel or vehicles or in the qualification of personnel supplied for an event will result in a breach of the written contract and the Medical Compliance Form which

could result in the eligibility of the organiser to either reduce or not to pay the medical service provider's bill for the event.

xi) **Definition of an Ambulance**

Listed below is a quick definition of an Ambulance. For further details, please contact the Medical Coordinator at Motorsport South Africa.

a) The vehicle must be modified, adapted and configured to resemble an ambulance, enabling the accommodation of at least one stretcher patient.
b) The vehicle must be registered as an "Ambulance" with the relevant authorities according to existing Acts, ordinances and regulations.
c) The vehicle must be clearly marked as an Ambulance on the front and rear with a sign which shall be a minimum of 600mm x 150mm.
d) Red warning lights and sirens must be attached to the registered ambulance.
e) The vehicle must be fitted with radio or telephonic communication so as to provide continuous communication with the ambulance control room.
f) The vehicle must be fitted with an in date fire extinguisher.
g) The vehicle must be equipped and stocked to the appropriate level of care as per BHF guidelines /Emergency Medical Services regulations. All equipment must be fully functional and all stock and medications must be within their expiry dates. (As per Appendix 4)
h) The driver of an ambulance, medical response unit and medical rescue unit shall hold an appropriate valid driver's license and, in the case of a patient carrying vehicle such driver shall also be in possession of a valid professional driving permit.
i) the interior of the patient compartment, excluding the driver's cab section, shall be a minimum of

(i)	height	1222mm
(ii)	width	1333mm
(iii)	length	1900mm

xii) **Definition of an Emergency Medical Response Vehicle**

The vehicle must be registered as an "Emergency Medical Response" with the relevant authorities according to existing Acts, ordinances and regulations.

a) The vehicle must be operated by a medical qualified professional;
b) The type of vehicle selected and the configuration of such Emergency Medical Response will be determined by the expected function and the type of terrain over which the vehicle is expected to operate, thus it may be response only or response and transport.
d) The number of medical response vehicles required will be determined by the nature of the event and the length of the circuit, Special Stages and Off Road loops.
e) The medical response vehicle requires a roof mounted red light. A sign stating "medical car" in red on a white background must be exhibited on both sides of the vehicle. The medical occupant in the vehicle e.g. CMO, CMC should be identified on the front of the vehicle.
f) The crew of any response vehicle should comprise of:
   aa) A driver experienced in driving on circuits or off road, with some medical knowledge and training as a rescue or radio marshal.
   bb) A medical practitioner or ALS paramedic with appropriate experience.
   cc) If available, an ILS or BLS practitioner capable of assisting the medical practitioner or ALS paramedic.
g) See Appendix 3 for equipment requirements.

xiii) **Definition of a Rescue Vehicle**

a) The vehicle must be registered as a "Rescue Vehicle" with the relevant authorities according to existing Acts, ordinances and regulations.
b) The vehicle must be operated by a rescue qualified professional;
c) The type of vehicle selected and the configuration of such Rescue Vehicle will be determined by the expected function and the type of terrain over which the vehicle is expected to operate,
d) The number of rescue vehicles required will be determined by the nature of the event and the length of the Special Stages and Off Road loops.

c) The rescue vehicle requires a roof mounted red light. A sign stating "rescue vehicle" in red on a white background must be exhibited on both sides of the vehicle.
d) The crew of any rescue vehicle should comprise of:
   aa) A driver experienced in driving on circuits or off road, with a medical qualification and training as a rescue practitioner.
   bb) A medical practitioner or ALS paramedic with appropriate experience.
   cc) If available, an ILS or BLS practitioner capable of assisting the medical practitioner or ALS paramedic.
e) See Appendix 5 for equipment requirements.

xiv) **Definition of an Aeromedical Service**

a) The Aeromedical Service must be registered with the relevant authorities according to existing Acts, ordinances and regulations.
b) The aircraft must be staffed by qualified and registered medical professionals.

16. MOTORSPORT MEDICAL QUALIFICATIONS

The following Medical qualifications are required at motorsport events.
NOTE: **A CMO/CMC who has attended a MSA medical seminar and passed must be on site during the entire race meeting, including pre and post race briefings.**

a) The Chief Medical Officer (CMO)
   aa) The CMO is a medical practitioner currently registered with the HPCSA (Health Professions Council of South Africa).
   bb) Eligible to officiate at Club, Regional and National events.
   cc) Experienced CMO's who hold the relevant international medical accreditation will be appointed by MSA for International events.
   dd) Must officiate as a CMO at a minimum of 3 events per year.
   ee) Must be current with the CMO/CMC seminar.

b) The Chief Medical Co-Ordinator (CMC)
   aa) The CMC is an Advanced Life Support (ALS) paramedic currently registered with the HPCSA.
   bb) Eligible to officiate as controller of medical services at Club and Regional events.
   cc) Experienced CMC's may be qualified to officiate at Club, regional and National events.
   dd) Must officiate as a CMC at a minimum of 3 events per year.
   ee) Must be current with the CMO/CMC seminar

c) Assistant Medical Co-Ordinators (AMC)
   aa) The AMC is either an Emergency Care Technician (ECT) or Ambulance Emergency Assistant (ILS) emergency care practitioner who is currently registered with the HPCSA; or a professional nurse (RN) registered with SANC.
   bb) May be utilised as administrative assistants to a CMO/CMC and, in the case of the ECT or ILS emergency care practitioner, as a member of the operational medical services.
   Professional nurses may be used as the managers of medical centres or as medical co-ordinators in race control.
   cc) Must officiate at a minimum of 3 events per year.
   dd) Must be current with the CMO/CMC seminar

d) Motorsport Medical Technicians (MMT)
   aa) The MMT is a Basic Ambulance Assistant (BLS) emergency care practitioner currently registered with the HPCSA.
   bb) Can only be used as Operational Medical personnel and not as Administrative Assistants.
   cc) Must officiate at a minimum of 3 events per year.
   dd) Recommend to be current with CMO/CMC seminar

17. DUTIES OF THE CHIEF MEDICAL OFFICER (CMO) AND CHIEF MEDICAL CO-ORDINATOR (CMC)

i) The CMO/CMC will take full responsibility for all Medical Services at the event, including spectators.

ii) The Medical Compliance Form and all event documentation (refer 6f) may be completed by an AMC but must be signed personally by the CMO/CMC.

iii) The CMO/CMC appointed for an event must be named as CMO or CMC in all event information, including the Official event programme.

iv) Shall provide proof of current valid malpractice insurance and personal injury insurance covering all medical staff at an event.

v) Shall be experienced in pre-hospital emergency medicine.

vi) The CMO/CMC must familiarise themselves with the circuit or venue prior to the start of the event.

vii) The CMO/CMC will identify ideal sites of deployment around the circuit or venue for operational medical personnel and vehicles including ground posts.

viii) The CMO/CMC shall, before the commencement of practice or racing, establish that all Medical Services are in position. This may require a circuit inspection.

ix) The CMO/CMC shall, before the commencement of practice or racing, brief all personnel before the start and at the completion of practice and racing on all days of the event.

x) The CMO/CMC must ensure that all operational medical services receive adequate food and fluid rations and have immediate access to toilet facilities.

xi) The CMO/CMC shall, in conjunction with the CoC appointed for the events, identify on a circuit or venue, the positions of all operational Medical Personnel and vehicles.

xii) The CMO/CMC or the operational manager of the circuit or venue medical centre must provide the CoC with written reports on the condition and disposal of all injured competitors (refer 4 v), 4 vi) and 13).

xiii) The CMO/CMC shall supervise the completion of all relevant documentation (refer 6f) and personally sign the Form.
The CMO/CMC should hand all completed documentation to the race secretary at the end of each event for onward submission to MSA – to be received by 12h00 on the Tuesday following the event.

xiv) The CMO/CMC, if possible, shall examine all injured competitors, determine the severity of their injuries and their fitness to compete. If the CMO/CMC is unable to perform this function, due to their expected presence in race control, an appropriately qualified and experienced deputy (Chief Operational Paramedic or Doctor) must be appointed.

xv) The CMO/CMC appointed for an event never has the right to stop an event. The CMO/CMC does however have the right to recommend to the CoC that a practice or race should be stopped for one of the following reasons:

a) If, in the opinion of the CMO/CMC competitors are allowed to continue circulating, there may be a threat to life or probable further injury to an already injured competitor or officials attending the event;

b) If weather conditions are so extreme that there is the risk of physical injury to competitors or that competitors will be unable to control their Motorcycles or Vehicles in the adverse weather conditions.

c) If medical and rescue personnel are unable to reach and or treat a competitor or official, for any reason whatsoever.

xvi) The CMO/CMC should, whenever possible, be stationed in race control whenever there are cars or motorcycles on a permanent circuit. For non-circuit events, the CMO/CMC must be in permanent radio contact with the CoC.

a) The CMO/CMC shall identify a regional hospital capable of rendering emergency treatment and the nearest level one hospital for definitive treatment.

b) The CMO/CMC will, in writing, notify the hospitals of the dates of the event and request the hospital to make its facilities available to injured competitors;

c) The hospital agreement must be obtained in writing, including contact telephone numbers for the hospital and a mobile number for a contact person to assist in the event of any problems encountered on the day, and that MSA insurance will be accepted on the day;

d) If possible, the CMO/CMC should inspect the appropriate hospitals;

e) Level 1 hospitals, which are usually only available in large urban areas, should have the following services available:
- Trauma Resuscitation Capability;
- Trauma Surgeon;
- Neurosurgeon;

- General Surgeon;
- Vascular Surgeon;
- Orthopaedic Surgeon;
- Cardiothoracic Surgeon;
- Burns unit and Plastic Surgeon;
- Medical Specialists;
- Intensive Care;
- CT + MRI Scanning Capacity.

xvii) The CMO/CMC shall, should the nature of the event require the presence of an Aero-Medical helicopter, arrange for such a helicopter and confirm the time and dates of arrival and departure and required registration. Should the nature of the event not require the physical presence of a helicopter but the possible use of the helicopter for transport of certain categories of injury, the CMO/CMC is required to notify the Aero-Medical Service of the date of the event and the possible need to utilise their services.

xviii) The CMO/CMC shall confirm services capable of transporting ill or injured competitors, officials or spectators to hospital from the circuit or venue. Only in the event of an acute life threatening injury may an Ambulance operational at the event be withdrawn to perform this function.

xix) The CMO/CMC must ensure privacy and care for the immediate relatives and team members of injured or fatally injured competitors.

xx) The CMO/CMC must ensure reliable radio communications between all medical personnel, vehicles and race control.

18. CHIEF OPERATIONAL PARAMEDIC (COP)

i) At certain events where the CMO/CMC may be required to be permanently in race control or at very large events such as International events, provision is made for the appointment of the Chief Operational Paramedic (COP).

ii) The responsibilities of the COP include, but are not limited to:

a) Ensuring that all operational medical staff are able to provide the medical service required;
b) Inspecting all operational medical personnel;
c) Ensuring all emergency vehicles are clean, appropriately equipped and appropriately crewed.
d) Ensuring that conduct is at all times professional and taking remedial action if breaches of conduct do occur.
e) Assisting the CMO/CMC with briefing and debriefing all Operational Medical Personnel before, during and after the event.

19. MEDICAL CENTRE MANAGER

i) Permanent circuits offering all categories of motorsport are required to have a Medical Centre at the circuit. The Medical Centre must be a permanent structure, as required by SANS 10366 and SASREA.

ii) It is beyond the financial capabilities and medical knowledge of most circuit owners to equip a Medical Centre on a permanent basis. It is therefore the responsibility of the Medical Service contracted for the event to determine what equipment is permanently available at the circuit and what equipment must be brought in for the event. This responsibility shall be designated to a doctor, paramedic or professional nurse who will be designated as the Medical Centre Manager.

iii) The Medical Centre manager need to ensure that the centre be equipped as per Appendix 2 as a minimum.

20. PROFESSIONAL NURSES IN MOTORSPORT

i) The Medical Panel of MSA welcomes the participation of professional nurses at motorsport events, particularly professional nurses with trauma and/or Intensive Care experience.

ii) Registration with SANC is a **Medicolegal** requirement.

iii) Professional nurses who attend a Medical Panel Seminar and complete the examination successfully will be registered as an AMC.

iv) While the scope of practice of medical practitioners and emergency care practitioners of all grades (ALS, ILS, BLS) is clearly defined by the various divisions of the HPCSA, with which body all medical practitioners and emergency care practitioners must

register annually, there is currently no scope of practice for professional nurses for Pre-Hospital Emergency Medicine legislated. As there are **Medicolegal** responsibilities and potential repercussions involved in all disciplines of medicine, professional nurses will not be eligible for appointment as CMCs until their scope of practice has been legislated.

21. CIRCUIT AND VENUE MEDICAL REQUIREMENTS

i) Every circuit, Venue and event is unique and will require unique medical services, which will depend on:
   a) The geographical location of the event;
   b) The duration of the event;
   c) The length and terrain of the track, loops in Off-Road events, Special Stages in Rallies and whether night stages are planned for the event;
   d) Road Access to the event and around the track;
   e) Availability of appropriate hospitals in the immediate vicinity of the track.

ii) A combination of the following types of Medical facilities may be required taking the statutory regulations into account, either wholly or severally, for motorsport events.
The medical facility must be of such nature as to provide patient privacy during treatment or examination.
The use of gazebos which are not screened off are not to be used.
Please refer to point 21.1 below for specific circuit medical requirements per motorsport category.

a) Fixed Facilities At Permanent Venues.
   aa) A permanent circuit medical centre as specified by SASREA and SANS 10366.
   bb) A defined, demarcated helicopter landing zone.

b) Temporary Facilities
A temporary medical centre, which may be:
   aa) A suitably designed caravan;
   bb) A tented structure which must have a ground sheet and screened around;
   cc) A solid structure such as a suitably converted container with adequate ventilation and lighting.

c) Mobile Facilities
   aa) A Medical Car or Cars or Vehicles suited to the local terrain;
   bb) A minimum of one Ambulance dedicated to the circuit or venue for the transport of injured or ill competitors or officials to the Medical Centre;
   cc) A minimum of one transport vehicle dedicated for the transport of ill or injured spectators to the Medical Centre (if medically necessary);
   dd) Ambulances available in the immediate vicinity of the venue for the transport of ill or injured competitors, officials or spectators to the nearest appropriate hospital to cater for the clinical condition of the patient;
   ee) Ground posts;
   ff) An Aero-medical helicopter on site or on standby.
   gg) An Aero-medical fixed wing aircraft on standby for Off Road events distant from appropriate hospitals.

iii) **Permanent Medical Centre**
   a) A permanent structure with specific facilities which can be utilised as a medical centre, must be provided by the owner of every permanent circuit or venue.
   b) The initial construction and installation of a permanent medical centre or any proposed addition or alterations to existing facilities must be discussed with MSA Medical Panel to ensure that the facility will comply with National and International guidelines and standards.
   c) The utilisation, equipping and control of the medical centre during an event is the total responsibility of the CMO/ CMC appointed for the event.
   d) The reasons for the requirement of a permanent medical centre include;

aa) A significantly injured patient cannot be resuscitated at the side of the track or in an Ambulance;
bb) Certain procedures, requiring specific equipment, cannot be performed in an Ambulance;
cc) Patient's privacy cannot be provided for in an Ambulance.

e) If the centre of the circuit has access to the outside of the circuit during practice or racing by tunnels under or bridges over the track, the ideal siting for a medical centre is inside the track. If not, the medical centre should be sited outside the circuit.
f) The medical centre must have immediate access to the track.
g) The medical centre must be fenced off, preventing public and media access to the medical centre. The helicopter landing zone must be demarcated within the fenced off area, minimum of 30m x 30m.
h) The medical centre must have a guaranteed source of electricity with backup power available (generator) and capable of providing sufficient power to run vital equipment. It must be well illuminated and ventilated and must have a permanent source of hot and cold water. Toilets for both genders and which will give access to disabled persons, must be available within the structure.
i) The medical centre must provide sufficient space to accommodate a minimum of 2 conventional examination couches, sufficient tables to accommodate all medical equipment and to allow for minor surgical procedures. Sufficient electrical power points must be available for all emergency equipment.
j) The medical centre must have communication with race control and all medical points, vehicles and medical personnel.
k) **Medical Centre Staffing**
aa) A medical centre at a permanent circuit must be opened, appropriately stocked and staffed for all National events. For Club and Regional events the Service Provider must have a key and the centre must be accessible and in a functional state. **This includes official practice and race day.**
bb) Medical centre staffing should consist of a minimum of 2 health care practitioners – preferably a medical officer, alternatively a paramedic or professional nurse.
cc) International events will require expanded staff and qualifications.
l) See Appendix 2 for equipment requirements.

iv) Temporary Medical Centre

a) **Caravan**: A caravan that has been suitably converted may be used as a temporary medical centre. Conventional caravans may be used as a medical post for minor injuries.
b) **Tents**: A tent or tents may be used as a temporary medical centre.
c) **Solid Structures Such as a Converted Container:** A large container, suitably converted and having electrical power and water supply, may be used as both a permanent and temporary medical centre.

v) Aero – Medical Requirements

a) It must be clearly understood that, under certain circumstances, air transport of injured competitors is not an optional but an essential requirement for optimal treatment of the competitor. Certain types of injuries are not amenable to road transport from the venue to hospital, particularly over long distances or very uneven terrain. This is particularly true for spinal injuries.
b) **Dedicated Aero – Medical Helicopter**
aa) The helicopter that is provided for the event should be a dedicated aero–medical helicopter with G7 licencing and Part 138 registration. However, due to the very high cost of such helicopters, a civilian helicopter may be utilized to deploy medical resources to a remote accident scene over difficult terrain. They may however not transport a patient.
bb) The requirements for a helicopter must be clearly defined.
- A helicopter on standby, but not at the venue, which can be called in to transport an injured competitor from the venue to an appropriate hospital.

- A helicopter on site at the venue which can be used for immediate response, particularly to areas that are inaccessible by road.

cc) Helicopter landing zones must be clearly identified immediately adjacent to the medical centre for the event.

dd) Should a helicopter be required on site at an event, the helicopter must be on site for the full duration of the event. The helicopter may be inspected before the commencement of the event.

ee) If a helicopter deployed at an Off-Road event leaves the venue to transport an injured competitor to hospital, the race will continue in the absence of the helicopter.

ff) The minimal crew on a helicopter is the pilot and one medical officer or one ALS Paramedic experienced in Aero-medical transport.

c) **Dedicated Fixed Wing Aircraft Medical Services.**

aa) The maximum range of helicopters is approximately 200-250kms. Events that are scheduled for remote areas may require the services of a dedicated fixed wing aero medical transport service to transfer a priority one patient to an appropriate trauma centre in an urban area. The aircraft must be G7 licenced and Part 138 registered.

bb) If the need for a fixed wing service has been identified, an appropriate landing field with GPS co-ordinates must be identified and submitted to the operating service.

cc) It is beyond the financial capabilities of an event organiser to have a fixed wing aircraft on site, therefore, it is sufficient that the appointed CMO/CMC who has identified the possible need for a fixed wing service contacts the services operators and notifies them of the event and the possible need for an aircraft.

21.1 **CIRCUIT AND VENUE MEDICAL FACILITY REQUIREMENTS PER CATEGORY. NOTE: All MSA sanctioned events require a minimum of at least One Advanced Life Support Paramedic (ALS) or Doctor suitably experienced in pre-hospital emergency care.**

i) Medical Response Vehicle

c) The type of vehicle selected and the configuration of such Medical vehicle will be determined by the expected function and the type of terrain over which the vehicle is expected to operate, thus it may be response only or response and transport.

b) The number of medical response vehicles required will be determined by the nature of the event and the length of the circuit, Special Stages and Off Road loops.

c) The medical response vehicle requires a roof mounted red light. A sign stating “medical car” in red on a white background must be exhibited on both sides of the vehicle. The medical occupant in the vehicle e.g. CMO, CMC should be identified on the front of the vehicle.

d) The crew of any response vehicle should comprise of:

aa) A driver experienced in driving on circuits or off road, with a medical qualification and qualified as a rescue rescue practitioner

bb) A medical practitioner or ALS paramedic with appropriate experience.

cc) If available, an ILS or BLS practitioner capable of assisting the medical practitioner or ALS paramedic.

e) See Appendix 3 for equipment requirements.

f) **The decision to mobilise the Medical Response Vehicle during practice/racing is taken in race control by the CoC in consultation with the CMO/CMC depending on radio communication from the incident site.**

Motorsport Facet Requirements

a) **Gymkhana, Drifting** – medical response vehicle not required.

b) **Drag racing** – one appropriate medical response car at the track (see point i) below for vehicle requirements).

c) **Circuit racing** – one medical vehicle per 2,5kms of the circuit. A vehicle selected as the medical car for circuit racing must be sufficiently powerful to complete one lap of the circuit behind the racing vehicles in a time equivalent to the time expected for the back markers of the field to complete the first lap of the circuit. It must have 4 doors and be capable of transporting three people comfortably with

space for all rescue and medical equipment required. It is recommended that the vehicle must be equipped with a roll cage and front and rear seatbelts. Must have two way radio communication with all emergency vehicles, ground posts, the medical centre and race control. Staff allocated to the vehicle shall wear appropriate helmets while on the circuit.

d) **Motocross, Karting, Oval, Supermoto, Trials** – 1 medical response vehicle at the track. The medical response vehicle should ideally be a Quad with a dedicated driver, able to accommodate an ALS paramedic and capable of transporting an injured competitor on a stretcher.

e) **Special Stage Rally:** As a result of the individual starts and the dust gap between starts, a number of stages in Special Stage Rallies may be raced simultaneously. A medical response vehicle must be deployed at the start of the stage and must be capable of reaching a competitor injured in the stage within 20 minutes. In a long stage that is expected to take longer than 20 minutes to complete, a second or possibly a third medical car should be deployed within the stage. The vehicle selected should be capable of reaching an injured competitor on the stage.

f) **Long distance Off Road events** require the organiser to submit a plan of the proposed route to the Regional Medical Representative two weeks in advance of the event. It is recommended that the Medical Response Vehicle for the event be capable to navigate the route. Only on receipt of this plan can the medical requirements be determined.
The general principle is the deployment of one Medical Response vehicle at the start and one Medical Response vehicle to cover every 50kms run on a single loop. The medical response vehicle with transport capability cannot be counted as an Ambulance. The concept of vehicle leapfrogging must be employed.

ii) Dedicated Circuit Ambulances for Competitors and Officials

The decision to mobilise a Circuit Ambulance during practice and racing is taken in race control by the CoC in consultation with the CMO/CMC depending on radio communication from the incident site.

a) An Ambulance deployed at a specific point on the track or loop may leave that point to transport an injured competitor or official to the medical centre or to an awaiting transport Ambulance.

b) On completion of the transport the Ambulance must immediately return to its initial point of deployment unless an alternate Ambulance has already replaced it.

c) Only under exceptional circumstances – immediate threat to life or limb – may an Ambulance deployed at the track leave the deployed point to transport a patient to hospital, leaving that point vacant.

Motorsport facet Requirements

a) **Gymkhana, Drifting** - one ALS Ambulance, appropriately crewed, must be deployed at the track.

b) **Circuit and Drag racing** – one ALS or one ILS Ambulance, appropriately crewed, must be deployed per 2.5kms of the track.

c) **Motocross, Supermoto** – two Ambulances (ALS/ILS), appropriately crewed, must be deployed at the track.

d) **Karting, Oval, Trials –** one ALS or ILS Ambulance, appropriately crewed, must be deployed at the track.

e) **Special Stage Rally** – one ALS or ILS Ambulance, appropriately crewed, must be deployed at the start of each stage. The Ambulance deployed must be capable to navigate the stages. The concept of vehicle leapfrogging must be employed.

f) **Long distance Off Road** – as for Medical Response Vehicle (one vehicle to perform a dual response-transport function). The general principle is the deployment of one Ambulance at the start and one Ambulance to cover every 50kms run on a single loop. Vehicle rotation including “leapfrogging” is critical to achieving cost effectiveness in Rally and Off Road events.

g) **Rally and Special Stage incident procedure**: In the event that an accident with injuries occurs in a stage, the response Ambulance will be dispatched into the stage.

The drivers of cars entering the stage will be informed at the start that there is a slow moving vehicle in the stage. In a long stage, where there are one or more response Ambulances deployed in the stage and the response Ambulance is directed to enter the stage, a board indicating a slow moving vehicle has entered the stage should be displayed at the point of entry.

h) **Historic and Classic Rallies, Regularity** and **Economy Runs** which are issued an MSA permit: There are no requirements for dedicated medical services. The organiser is requested to notify the EMS and hospitals of the regions through which the event will proceed of the date of the event. Proof of notification and acknowledgement by the relevant EMS and hospitals must be sent to MSA by 14h00 on the Tuesday two weeks before the event.

iii) Transport Ambulances

a) In the event that an injured competitor, official or spectator is required to be transported from the event to hospital, an Ambulance not deployed at the event must be dispatched to transport the patient.

b) In the event that the medical condition is immediately life or limb threatening, an Ambulance deployed at the event may have to be dispatched to provide the necessary transport without jeopardising the welfare of the patient. The Ambulance dispatched must be replaced immediately, either permanently or temporarily, until the Ambulance returns from the hospital.

c) A dedicated transport ambulance **must be physically present** at the event for the following scenarios:

aa) Distance to initial Regional hospital identified as suitable for stabilization of more than 50km; or

bb) No local EMS provider within 50km.

iv) Ground Posts

a) Ground posts may be required at Motocross, Supermoto, Karting, Circuit and Short circuit events.

b) Injured motorsport competitors must receive medical attention as soon as possible after injury. A Ground Post is a point adjacent to the track which the CMO/CMC and CoC have identified as areas where accidents and falls may occur. This point is identified as a Ground Post which can provide immediate medical response.

The post should be in close proximity to a marshals' point and should be crewed by an ILS Practitioner but recommended by an ALS paramedic (if available) and BLS practitioner, who will respond on foot to the fallen or injured competitor.

c) One or more ALS paramedics, mounted on medically equipped Quads may replace ALS paramedics at Ground Posts.

d) Multiple Ground Posts may be required.

e) The Ground Post selected must:

aa) Afford operational crews with adequate physical protection from injury;

bb) Afford operational crews with protection from the elements and immediate access to toilets;

cc) Have functional radio communication with race control, the CMO/CMC and the medical centre;

dd) Have Ambulance back up immediately available.

22. SPECTATOR MEDICAL REQUIREMENTS

i) It is the responsibility of the event CMO/CMC to ensure sufficient medical services, **in**

addition to the circuit and venue medical facility requirements mentioned above, are dedicated to providing medical care to spectators.

ii) The requirements for the provisions of Medical services and Ambulances will be determined by the size of the crowd, the distribution of spectators at the event, the physical characteristics of the event locale and the duration of the event.

iii) Members of registered first aid organisations may be deployed to provide first aid for spectators.

iv) **Up to 3,000 spectators:** Medical caregivers to be 1 ILS and 2 BLS.
One dedicated transportation vehicle for transportation of ill or injured spectators to the medical centre should this be medically necessary. The type of transport vehicle will depend on the local terrain, access to spectator areas and other medical resources present at the event.

v) Up to **of 5,000 spectators:** An Ambulance (including full medical staffing) is required for the first 5,000 spectators with additional resources (Consisting of 1 ILS and 4 BLS)

vi) **In excess of 50,000 spectators:** A separate medical facility is required in addition to 2 Ambulance, 1 Manager (Can be the CMO/CMC), 1 Doctor, 2 Paramedics (ALS), 2 ILS, and 16 BLS

vii) It is important to note that the above guidelines are minimum requirements and organisers and CMO/CMCs should adhere to statutory regulations at all times.

viii) CMO/CMC need to determine the amount of personnel required as per SANS 10366 Risk Categorization.

23. COMPETITOR WITHDRAWALS

i) In an attempt to distinguish between an accident and competitor withdrawals, particularly in Off Road events, any competitor who withdraws must submit their time card or notify the nearest race official as soon as possible after withdrawing.

ii) The withdrawing competitor is required to hand a report containing the reason for their withdrawal. This must be include the competitors name, ID number and MSA licence number. The competitor must receive a receipt signed by a race official.

iii) Failure to comply with this regulation may result in an R1000.00 fine and suspension of the competitor's licence pending an enquiry.

iv) A competitor who withdraws after an accident must be seen by the CMO/CMC and have their name entered on the official event Accident Report Form.

24. INCIDENT MANAGEMENT

i) Immediate and professional incident management is vital for the welfare of every competitor and the safety of fellow competitors, officials and medical personnel.

ii) Incident command requires the most senior person at the incident scene to take immediate command of the incident who are experienced in the management of incidents. This may be a marshal, a post chief or medical personnel at an adjacent Ground Post.

iii) The person taking immediate incident command may be replaced on the arrival of a more senior or professionally qualified person.

iv) The initial single incident command may be broken up into various sector commands which may include medical, fire and rescue sector commands. This is vital in the management of multiple casualty incidents such as structural fire, stand collapse, etc.

v) The incident commander has the following immediate responsibilities:
   a) Notifying race control of his attendance at the incident;
   b) Providing a preliminary report for race control identifying:
      aa) The exact site of the incident;
      bb) Whether the vehicles are on or off the racing area;
      cc) Whether the race can continue or not;
      dd) The presence of hazards such as fire, fuel leak etc.
      ee) Driver entrapment or not.
   The times of all communications must be documented by the race control.

vi) As early as possible, the medical person on scene must provide a concise medical status report:
Priority 1 – e.g. Polytrauma;
Priority 2 – e.g. Fractured ankle;
Priority 3 – e.g. Abrasions Arm;
Priority 4 – not resuscitatable.

The times of all communications must be documented by race control.

vii) Determine the most appropriate means of moving the competitor off the circuit – Ambulance on access road, Ambulance on circuit, competitor walking etc.
The information obtained from the procedures outlined in v) and vi) is vital for deciding whether racing may continue or must be stopped.

viii) In the event of multiple casualties occurring, the race must be stopped to allow additional emergency vehicles to enter the circuit. Under no circumstances may the aero-medical helicopter land on the circuit.

ix) Extrication of entrapped drivers must be accomplished by using the accepted equipment and principles of medical rescue.

x) The Incident Commander must notify the medical centre via Race Control of the imminent arrival of the competitor at the centre.

xi) Racing that has been stopped to allow access to injured competitors may not recommence until all injured competitors, officials and medical and rescue personnel have cleared the track completely and available to resume duties at the track.

xii) On completion of the evaluation of all injured competitors and officials, the incident commander will supervise the clearing and cleaning of the incident scene. Once this has been satisfactorily completed, the incident commander will initiate the orderly withdrawal of all personnel vehicles not deployed at that point. On completion, he will notify race control that the incident command has been closed down.

25. DEBRIEFING

Although medical personnel are frequently exposed to grotesque injury and death, it must be remembered that marshals, some of whom are very young, are not exposed to such scenes. It is the responsibility of the CMO or CMC to assess the state of mind of exposed officials and medical personnel and, if necessary, to debrief them during or after the event and to identify the need for further professional counselling.

26. MAINTENANCE OF MEDICAL SERVICES AT EVENTS

If, at any time, the number of medical officers, emergency care practitioners or professional nurses and EMS vehicles committed to the event, in accordance with the medical compliance form, are not present at the event, the event must be stopped until the full service is available.

27. NATIONAL TARIFF FOR MEDICAL SERVICES

No national tariff for medical services is recommended. Organisers are requested to negotiate with EMS providers individually. As a guideline the published UPFS tariffs of Public Sector can be used.

28. GENERAL PRINCIPLES FOR THE RETURN OF AN ILL OR INJURED COMPETITOR TO COMPETITIVE MOTORSPORT

i) This protocol embodies accepted guidelines for the clinical assessment of ill or injured competitors and their eligibility to safely return to competitive motorsport.

ii) It must be clearly understood by all CMO/CMCs that a decision taken regarding a competitor's fitness to compete or not may be required under pressure from various parties, which may include parents, team members, sponsors, manufactures, etc.
The introduction of professionalism in all disciplines of sport subjects sportsmen and women to contractual obligations which may be dehumanising.

iii) **The final decision as to fitness to compete in an event is to be made by the CMO/CMC appointed for the event and the decision taken may not be reversed on the day of the event by any official or medical practitioner. It is understood that seemingly unfavourable decisions may at times need to be made, but it is vital that the preservation of the physical and moral integrity of every competitor is always placed ahead of sporting interests.**

iv) **The development of new surgical techniques that are increasingly less invasive and, therefore, less physically damaging to the patient have resulted in dramatically reduced hospitalisation days. The technological progress does not, in any way, alter the well-documented pathology and time involved in bone healing and scar tissue formation. Healing will take the same time it has always taken.**

v) The following criteria must be evaluated to determine fitness to compete:

a) To ensure the immediate safety of the competitor for himself, other competitors, officials and spectators;
b) To ensure that the injury has healed completely;
c) To ensure that a return to competition will not predispose the competitor to develop prematurely chronic and degenerative conditions such as epilepsy, degenerative arthritis requiring joint replacement surgery, etc.

vi) **Lacerations**

a) The healing of skin incisions required for surgical procedures requires time proven by surgical principles. Sutures in both surgical and traumatic wounds must be removed and complete wound healing must have been documented prior to returning to competition.
b) General guidelines for skin healing and suture removal:
Face – 5 – 7 days
Scalp – 5 – 7 days
Torso – 7 – 10 days
Limbs – 7 – 14 days
Wound over joints – 14 – 20 days

vii) **Injuries to limbs**

a) The presence of temporary internal fixation devices and percutaneous wires for the reduction and immobilization of fractures and fractures dislocations is an absolute contraindication to returning to competition prior to removal of such devices and documentation of complete healing. Competitors with a permanent internal fixation device like a hip prosthesis, plated clavicle, nails in tibia, femur or humerus can return to the sport 6 months after complete healing has taken place. Competitors are reminded that should they sustain a second injury to the affected limb they may be denied claims against MSA Insurance. The competitor needs to submit a **detailed** report from the treating orthopedic surgeon in this respect before a decision would be taken to allow him back.
b) Rigid external fixation devices used to immobilise an injury such as external fixators, plaster casts of any type, rigid external prostheses such as splints and moon boots are an absolute contra-indication to returning to motorsport. These devices can, on their own, become damaging agents in an accident due to their elasticity differing from that of human tissues and bones.
c) The following set of simple tests may be utilised by the CMO/CMC for assessing recovery of function:

aa) **Upper Limb Injuries**

a. Active and passive joint mobility and range of movement equal to or greater than 50% of the expected normal range of movement of the joints of the shoulder, elbow, wrist and thumb;
b. Perform 5 – 10 press – ups with open hands;
c. Perform 5 – 10 press – ups with closed fists against a wall with the feet placed 50cms from the wall

bb) **Lower Limb Injuries**

a. Active and passive joint mobility and range of movement equal to or greater than 50% of the expected normal range of movement of the joints of the hip, knee and ankle.
b. Alternate weight bearing on the left and right foot for at least 15 seconds.
c. Run, without assistance, a distance of 20 metres in a maximum time of 15 seconds.
d. Go up and down 10 stairs in a maximum time of 20 seconds.
e. Jump on and off a 30cm step bearing weight on the affected Limb 10 times.

viii) **Head Injuries and Concussion**

The CMO/CMC is to confiscate the helmet of every competitor involved in an accident where there is either any visible or suspected structural damage. A joint decision will be made by the CMO/CMC and CoC as to whether the helmet is to be destroyed.

a) **Concussion**

Minor head injuries, with or without loss of consciousness, may be problematic for CMO/CMCs, particularly repeated episodes. The following

protocol has been adapted from the directives of the American Academy of neurologists for concussion in sport:

c) Grade 1 Concussion

No loss of consciousness;
A period of confusion lasting less than 15 minutes;
Symptom free within 15 minutes;
No localising neurological signs;
Normal vital signs;
The competitor may only return to racing once a brain scan has been performed and no acute findings reported, and if cleared to do so (in writing) by the attending medical practitioner at the referral hospital.

c) **Grade 2 Concussion**

No loss of consciousness;
A period of confusion lasting longer than 15 minutes;
Symptoms lasting longer than 15 minutes;
No localising neurological signs;
Normal vital signs;
The competitor requires full neurological/neurosurgical assessment and brain scanning, and may only return to sport once cleared to do so by the attending neurologist/neurosurgeon.

d) **Grade 3 Concussion**

Loss of consciousness lasting seconds or longer;
Period of confusion and variable amnesia for the incident; Amnesia may be anterograde as well as retrograde;
Prolonged symptoms;
No localising neurological signs;
Normal vital signs;
T*he competitor requires full neurological/neurosurgical assessment and brain scanning, and may only return to sport once cleared to do so by the attending neurologist/neurosurgeon.*

ix) Major Head Injuries

a) Serious head injuries, with a prolonged period of coma and abnormal brain scans will only be eligible to restart competitive motorsport after complete normalisation of both clinical and brain scan examinations, if at all.

b) Extradural haemorrhage requiring emergency craniotomy and drainage without opening of the meninges will require complete normalisation of clinical and brain scanning examinations before returning to competitive motorsport. Minimum period of six months.

c) Subdural haemorrhage, with or without emergency craniotomy and drainage, will require complete normalisation of clinical and brain scanning and termination of anticonvulsant therapy before returning to competitive sport, if at all.

d) A head injury, with or without surgical intervention that results in a permanent neurological deficit such as hemiparesis, epilepsy, cognitive loss, will result in the permanent suspension of the competitors licence. Similar procedures will be followed in competitors treated for brain tumours, cysts or abscesses.

e) A competitor who suffers two or more episodes of grade 3 concussion in one calendar year must provide documentary evidence of normal neuropsychological, neurological and brain scan examinations before being declared fit to race.

x) Abdominal Surgery

For all types of abdominal surgery, whether the peritoneum is opened or not, the competitor may not return to competitive motorsport for a minimum period of one month, depending on a document identifying full recovery.

xi) Heart and Lung Disease (Including Surgery)

Competitors with lung or heart conditions or who have undergone lung or heart surgery must present a certificate from the treating specialist (pulmonologist, cardiologist or cardiothoracic surgeon) stating that the competitor has recovered completely and is fit to compete in motorsport.

Anticoagulants (e.g. Warfarin, Coumadin) that are prescribed to a competitor in Off Road and Enduro events over long distances, will result in a temporary suspension of

the competitors licence until the competitor has been taken off the medication. Participation whilst on antiplatelet agents (Aspirin, Plavex) that decrease clotting is not recommended in Off Road and Enduro events over long distances, due to the increased likelihood of a fatal haemorrhage and prolonged time to definitive medical care if injured in an accident. It is recommended that the competitor only returns to competitive motorsport once taken off the medication.

See Appendix 1, 2 & 3 Below

APPENDIX 1
CMO/CMC CHECK LIST FOR MOTORSPORT EVENTS

1. PRE-EVENT CHECKLIST

1.1 Identify the dates, times and the venue for the event.
1.2 Identify the medical facilities and equipment/stock available at the venue.
1.3 Identify the minimum medical services required for professionally serving the event, both for the circuit/track and the spectators.
1.4 Identify special requirements to be present at the venue such as personnel, x-ray equipment, etc.
1.5 Identify the need for aero–medical services, either on site or on standby.
1.6 Identify hospitals appropriate for emergency and definitive treatment, contact the hospitals and notify them of the date of the event. Identify contact telephone numbers for the hospital and a mobile number for a contact person to assist in the event of any problems encountered on the day. Request the hospital to confirm its availability and acceptance of MSA Insurance in writing.
1.7 Identify average transport times from the venue to the hospital both by road and by air.
1.8 Identify possible public health and infectious disease hazards and plan accordingly e.g. malaria.
1.9 Ensure that all competitors and their teams, organisers, officials and medical personnel are informed of potential health hazards and immunizations required for the region.
1.10 Ascertain the expected weather conditions and plan accordingly.
1.11 Ensure that a disaster plan is available for the venue.
1.12 Ensure what type of uniform is required for the event and ensure its delivery one week before the event.
1.13 Ensure that food and beverages will be regularly available for all personnel.
1.14 Hold briefings with medical personnel.

2. EVENT CHECKLIST

2.1 Reconfirm the availability of the designated hospitals and if necessary, visit the hospitals.
2.2 Reconfirm the acceptance by the hospital of MSA Insurance.
2.3 Reconfirm transport times to hospitals.
2.4 Confirm the provisions for anti-doping testing.
2.5 Ensure your presence at the venue 2 hours before practice and racing commences and, if possible, perform a circuit inspection 30 minutes before practice or racing.
2.6 Conduct CMO/CMC inspection of:
- The Medical Centre;
- All medical vehicles and personnel;
- All Ground posts;
- The helicopter if onsite.
- Radio communications with all above persons and race control.

2.7 Conduct daily pre- and post-event briefings and debriefings.
2.8 Confirm with the CoC that all medical personnel and vehicles are in attendance and deployed. Request the CoC to sign the Medical Compliance Form. If medical services do not comply, notify the CoC and take remedial action.
2.9 Perform requested Special Medical Examinations.

3. IN THE EVENT OF AN ACCIDENT

3.1 In consultation with the CoC determine whether the race can continue or not.
3.2 Ensure that appropriate medical attention reaches injured competitors as soon as possible.
3.3 Request early information on the medical status of injured competitors.
3.4 Supervise the medical treatment of injured competitors.
3.5 Determine the disposal of injured competitors, whether discharged or transferred to Hospital, determining the appropriate method of transport.

4. **IN THE EVENT OF A FATAL ACCIDENT**
   - 4.1 Ensure that Medico-legal requirements of the country's legal system have been completed.
   - 4.2 Ensure that medical information is provided to the immediate family, or in their absence, team members.
   - 4.3 Ensure that care and counselling is provided to immediate family, team members, sponsors and officials affected by the incident.
   - 4.4 Ensure that the CoC and all relevant officials are notified confidentially, including the President of the Medical Panel.
   - 4.5 Absolutely no information may be divulged to any representative of any branch of the media.

5. **POST EVENT CHECKLIST**
   - 5.1 Ensure that every ill or injured competitor has been adequately assessed, treated and transferred.
   - 5.2 Ensure that Patient Report Forms are fully completed.
   - 5.3 Complete fully and clearly the Accident Report Form, sign and ensure that all documentation reaches MSA timeously i.e. by no later than 12h00 the Tuesday following the event. The Accident report form must be sent even if there are no incidents to report.
   - 5.4 Debrief all operational personnel.
   - 5.5 Stand down all operational personnel.

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APPENDIX 2
MEDICAL CENTRE EQUIPMENT

The following equipment is required in the medical centre for official practice and race days:

1. Equipment and facilities to be supplied by the venue (in addition to point 21.iii above):
   - 1.1. Examination Couch(es)
   - 1.2. Procedure Trolley
   - 1.3. Drip stand
   - 1.4. Medical waste and sharps containers
   - 1.5. Water
   - 1.6. Electricity
   - 1.7. Toilet (permanent medical centres)
2. Consumables and equipment to be supplied by the medical service provider:
   - 2.1. Stethoscopes; pupil torches; thermometers; diagnostic sets containing auroscopes and ophthalmoscopes;
   - 2.2. Manual and electronic blood pressure recording and monitoring equipment.
   - 2.3. Immobilisation devices including spine boards, scoop stretchers, spider harness, head blocks and rigid cervical collars;
   - 2.4. A continuous oxygen supply with sufficient back-ups;
   - 2.5. Oxygen delivery devices (60% partial rebreathers, venture masks, nebulisation masks);
   - 2.6. Suction apparatus (battery operated and manual) and catheters;
   - 2.7. Bag–Valve–Mask–Reservoir; Mechanical ventilation;
   - 2.8. Laryngoscopes with full range of adult and paediatric blades, spare batteries and bulbs;
   - 2.9. Full range of endotracheal tubes, oropharyngeal airways, introducers, Magill's forceps, tracheostomy tape;
   - 2.10. Surgical cricothyroidotomy set;
   - 2.11. Full range of IV cannulas, intravenous fluids and administration sets;
   - 2.12. Monitor – defibrillator and pulse oximeter;
   - 2.13. Traction and immobilisation splints;
   - 2.14. Burn dressings
   - 2.15. Warming equipment – eg. forced air warmer (bair hugger) and fluid warming equipment,, when required.
   - 2.16. Full range of resuscitation, sedation, analgesic and paralyzing drugs (within scope of practice), including lock-up facilities as required;
   - 2.17. Full range of consumables;

2.18. A range of medication for minor ailments,
2.19. All MSA medical documentation and supplemental documents as required.
2.20. In the event that a trauma experienced medical practitioner is present in the medical centre:
  2.20.1. Central venous line kits (high capacity);
  2.20.2. Intercostal drain kits;
  2.20.3. Alternative airway devices;
  2.20.4. Suturing materials and instruments.
2.21. The following equipment is either recommended or compulsory for international events:
  2.21.1. Diagnostic ultrasound apparatus;
  2.21.2. X-ray or C-arm radiological apparatus.

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APPENDIX 3
MEDICAL RESPONSE VEHICLE EQUIPMENT

The medical response vehicle must have radio communication with Race Control and the CMO/CMC and carry the following medical equipment:

1. Sphygmomanometer, Stethoscope and pupil torch;
2. Full range of rigid cervical collars;
3. Extrication devices (KED) and belt cutters for car events, rescue scissors;
4. Portable oxygen and oxygen delivery devices (60% partial rebreather, nebulisation masks)
5. Suction apparatus and catheters
6. Bag–Valve–Mask-Reservoir
7. Full range of airway management equipment including:
   - Laryngoscope with full range of blades; spare batteries and a light bulb
   - Range of oral airways
   - Endotracheal tubes sizes 2-9; Endotracheal tube introducers; Magills Forceps
   - Tracheostomy tape
   - Surgical cricothyroidotomy kit.
8. Full range of circulatory management equipment including:
   - Range of IV cannulas
   - Range of administration sets and IV fluids
9. Monitor - defibrillator and pulse oximeter;
10. Burn dressings;
11. Full range of consumables;
12. Full range of resuscitation, sedation and analgesic drugs.
13. Immobilisation devices – splints (including traction splint for femur fractures), scoop stretcher/spine board, head blocks and spider harness.
14. It is recommended that a device to accommodate for the aerodynamic hump on motorcycle leathers when immobilizing a patient in the supine position is also present. These are available commercially (very expensive) but can be improvised rather inexpensively.