



HKRU
香港欖球總會

Hong Kong Rugby - 2016

SAFETY IN THE PLAYING

ENVIRONMENT

Safety in the Playing Environment

Introduction

Rugby is a collision sport that requires a fit, trained and skilled participant in order to reduce the risk of injury. In addition, the playing environment needs to be suitable and hazard-free, with the correct supporting personnel at hand in order to minimise injury and enhance safety.

This document aims to give practical guidelines to coaches and referees to allow play to take place in a safe environment. Rugby event management, from a medical perspective, is designed to provide on-site medical care and administration to all participants in rugby matches. HKRU, an affiliate of World Rugby, has provided guidelines for the minimum emergency medical requirements. This includes safety advice and medical care at the events. The minimum requirements are those necessary to ensure that the likelihood of a catastrophic event is minimised, and in the event that such an injury occurs the player is managed appropriately. These minimum requirements will differ based on the level of competition, socio-economic conditions and demographics. These minimum requirements are divided into four main categories depending on the type of match being played: “Bronze”, “Silver” and “Gold” and “Platinum”

Bronze	Silver	Gold	Platinum
School rugby matches	HKRU sanctioned events; i.e. Kowloon Fest, Country of Origin	AR matches and tournaments; e.g. ARC, Asian U-20's	WR tournaments; e.g. World Sevens Series, Olympic Qualifiers
Community rugby 'friendly' games	Tournaments or gathering of clubs	Test matches	
Mini rugby training/games			
Tertiary rugby matches			
Club rugby matches			

These requirements are the very minimum requirements that should be in place for a rugby match to take place. The minimum requirements for sanctioned competitions, tournaments and rugby festivals are more strict. One should however, where possible, continuously strive to improve the medical support available at matches at all levels of play.

Safety in the Playing Environment

The home team management is responsible for the design, implementation and presentation of an emergency action plan. At “Bronze” level events, this must be presented to the referee before the game.

The referee is responsible for confirming that all requirements for a safe environment and emergency

plan are in place before allowing a match to start. Where Clubs do not have a ‘home ground’ the designated ‘home team’ will be responsible for ensuring the safety requirements are in place before the game.

To ensure the safety of players in rugby matches, the following must be assessed:

- Environmental conditions
- Personnel
- Equipment
- Medical Facilities
- Accessibility – Units for Advanced care
- Emergency Action Plan – Potential Catastrophic Injury

The assessment and acceptance of these conditions will be determined in professional events and tournaments by the level of competition, and in amateur competitions by the level of competition as well as the socio-economic and demographic circumstances.

Environmental conditions

Ensuring safe environmental conditions requires assessment of both the weather conditions as well as the playing environment.

Playing Environment

The Playing Environment includes the field of play as well as the immediate surrounding area.

Advertising hoardings, poles, pylons and barriers must ideally be 5m from the touchline. If one or more of the abovementioned obstacles cannot be removed they must be suitably covered up to provide maximum protection to the players. If areas of the playing surface comprise an asphalt / tartan track it should be suitably covered as well.

The playing surface should be grass, artificial grass (conforming to WR regulation 22), sand or clay. It must be firm and free of hazards, including stones and glass. If there is surface water sufficient to realistically raise the risk of drowning, the game should not commence. The decision to start a game where ground water is present is at the sole discretion of the referee and common sense should prevail.

Safety in the Playing Environment

Weather Conditions

Environmental conditions	Bronze	Silver	Gold	Platinum
Heat Index; temperature & humidity*	✓	✓	✓	✓
Weather warnings; rainstorm/ thunder/ storm*	✓	✓	✓	✓
Telephone access	✓	✓	✓	✓

* Heat Index calculator = <http://www.wpc.ncep.noaa.gov/html/heatindex.shtml>

Hot conditions:

Research has not identified a specific temperature and/or humidity when the playing of a rugby game is not advised; previously it has been recommended that conditions are considered unsafe for **athletic competition** when the ambient temperature is > 30° and the Humidity is greater than 60%. This correlates with a wet bulb globe thermometer (WBGT) reading of greater than 28 degrees. As rugby is a sport where fluids are more readily available and the potential for cooling is greater, these recommendations have not been ratified for rugby union.

The Heat Index has been found through research to be a better measure of heat stress and relies on readings taken on a whirling hygrometer. This is both practical and reliable and it is ideally recommended that the readings are monitored at each rugby ground via the HK Observatory = <http://www.weather.gov.hk/contente.htm> to measure the weather conditions. The Heat Index takes into account air temperatures at various relative humidities and provides an 'Apparent Temperature' as an indication of what it feels like to the body (the opposite of wind chill). Prior studies have confirmed that if the Heat Stress Index is below 32C, the risk to players should be minimal. If the heat stress index is above 40C then the risk to competitors is likely and the game should not be started unless heat reducing measures are in place. If the heat stress index is above 51C the risk is extreme and the game should be postponed until the situation has improved. Heat reducing measures are listed below.

- Provision of fans in the change-rooms.
- Provision of pitchside shade
- Water and towels placed in ice water must be strategically available alongside the field.

Safety in the Playing Environment

- Water breaks should be held regularly, e.g. a 2 min break at the 20 min point of each half.
- The halftime break should be increased from 10 min to 15 min.

Lightning:

No play should start when lightning is present in the immediate vicinity. If available, a lightning warning system should be used. Telephonic communication with the HK Observatory can provide information on the prediction of inclement weather. The MyObservatory App for phones can be downloaded from the following website; http://www.hko.gov.hk/myobservatory_e.htm

Medical Personnel

The medical personnel required at a rugby game will vary depending on the level of competition. However, the higher the level of training of medical support personnel together with more personnel being available on match day is desirable

Medical Personnel	Bronze	Silver	Gold	Platinum
Match Day Doctor	X	X	X	✓
Pitch Side Doctor	X	X	✓	✓
Specialist services on site	X	X	X	✓
Specialist services on standby	X	X	✓	✓
Medical Room Nurse	X	X	X	✓
Medical Liaison	X	X	✓	✓
ICIS/ ICIR Level 3 Medics	X	X	X	✓
ICIS/ ICIR Level 2 Medics	X	✓	✓	✓
ICIS/ ICIR level 1 Medics	X	✓	✓	✓
Trained First Aider or Rugby Medic	✓	X	✓	✓
Ambulance and staff on site	X	X	X	✓
Ambulance and staff on standby (by phone)	✓	✓	✓	X

Pitch side doctor:

This is ideally a Sports Physician or an Emergency Physician. One of these persons is to act as the official Match Day Doctor where applicable. The match day doctors' duties are clearly defined in the WR Team Physician and Match Day Doctor module on-line at <http://playerwelfare.worldrugby.org> and in the Participation Agreements for domestic competitions. These will be given to the relevant medical personnel via the host union.

Match Day Doctor:

This is a Sports Physician or General Practitioner experienced in treating sports injuries. The Match Day Doctor's primary duty is to oversee all primary field side care management, manage the medical room

Safety in the Playing Environment

and assist the visiting Team Physicians should their assistance be required. These include prompt management of injuries, referral to hospital and management of “blood injuries”. This person should ideally be trauma trained and should manage the medical room.

The following Specialist services, if available, will benefit all players.

Specialist service on-site (“Platinum”)

- Sports Physician
- Emergency Physician/ anaesthetist
- ICIS/ ICIR Level 3 Nurse

Specialist service on standby (“Gold” & “Platinum”)

- Radiology Unit
- Radiologist
- Orthopaedic Surgeon
- Physician
- Sports Physician
- Neurosurgeon
- Cardiologist
- General Surgeon
- Dentist
- Maxilla Facial Surgeon
- Plastic/reconstructive Surgeon
- Emergency Services
- Pharmacist
- ENT surgeon

“Silver”, “Gold” and “Platinum” Category Events

The following personnel should be present to manage the player from the field to the medical room. At elite events the qualifications and training of the personnel should be as high as possible.

- Minimum of 2 paramedics (ICIS/ ICIR Level 2). Silver, Gold and Platinum
- Two First Aiders, ICIS/ ICIR Level 1 as support to the paramedics. Silver, Gold and Platinum
- Qualified nurse to assist Match Day Doctor in the Medical facility. Platinum
- Medical liaison officer to act as intermediary between teams and medical personnel. This is often the venue doctor. Gold and Platinum
- Medical Team to man separate spectator medical facility. Platinum
- Fully equipped ambulance staffed by paramedics on-call. Silver and Gold
- Fully equipped ambulance staffed by paramedics. Platinum

Safety in the Playing Environment

“Bronze” Category Events

The minimum personnel required for a rugby game to take place are:

- One or two persons suitably trained in First Aid, e.g. Asia Rugby First aid in Sports (FIS)
- Asia Rugby FIS – Minimum requirement at match venues in communities who do not have own regular facility (for further information go to www.hkrugby.com) – these should not be seen as replacement personnel for a first aider or paramedic, where they are available!

Referees/coaches who have First Aid knowledge add immense value, and all referees and coaches must be ICIS/ ICIR Level 1 trained and certified. The presence of a Sports Medicine trained doctor or a doctor experienced in treating sports injuries will also be valuable.

Equipment – Sideline

Equipment	Bronze	Silver, Gold and Platinum
Spinal Board/ Scoop EXL and 4 body straps*	✓	✓
Cervical collars and head blocks*	✓	✓
Automated External Defibrillator (AED)	✓	✓
BLS equipment (oxygen, simple airways, suction)	X	✓
First Aid bag	✓	✓
ALS Equipment (IV, advanced airways, BVM, drugs) in Ambulance	X	✓
HKRU Concussion Guide	✓	✓
Injury report forms	✓	✓
Copy of Emergency Action Plan (EAP)	✓	✓

* In certain LCSD facilities it is not permitted to store this equipment therefore this cannot be seen as a requirement

The following equipment is recommended as a minimum requirement, and is by no means extensive.

The amount and type of equipment available should be dependent on the qualifications of the personnel available.

- Spinal board/ Scoop EXL with all attachments and 4 body straps
- Cervical collars & head blocks
- HKRU Concussion Guide
- Injury report forms
- Basic life support (BLS): Silver, Gold and Platinum
 - o Airway (nasopharyngeal, oropharyngeal, laryngeal devices/tubes)
 - o Breathing (Oxygen, face mask, bag-valve-mask (BVM))
 - o Circulation (AED – automated external defibrillator)
- Advanced life support (ALS): Gold and Platinum
 - o Equipment and drugs to manage advanced cardiopulmonary support
 - o IV lines and fluids

Safety in the Playing Environment

- First aid bag: Bronze, Silver, Gold and Platinum

First aid kit which typically includes: - emergency shears / scissors (blunt ended) – gloves non-latex- gauze swabs- towel – elastic compression bandages (5cm, 7.5cm) – assorted plasters - elastic cohesive bandages (5cm, 7.5cm) - petroleum jelly – water for wound cleansing – non-stick dressings e.g melolin - triangular bandages - skin care pad (e.g. Second Skin) - ice pack - adhesive dressings (e.g. Tegaderm) - adhesive tape – PVC tape - ice – plastic bags and cling wrap for ice

All the above items should be located in the technical zone/ medical tent.

Medical Facilities

Medical Room	Bronze	Silver	Gold	Platinum
Medical tent/station	✓	✓	X	✓
Emergency treatment room	X	X	✓	✓

Emergency treatment station:

A treatment tent or station should be available at each ground and should be used specifically for this purpose only. It should be easily accessible from the playing field and for advanced care personnel, and ambulance for transportation. If multiple fields are being used the medical station should be centrally situated and accessible to all fields and to emergency transport.

A medical room (Gold and Platinum) must have the following facilities available:

- Suitable electrical lighting
- Telephone access– a fixed line telephone should be available and working. This is imperative to assess environmental conditions prior to game commencement. In the Emergency Action Plan for a potentially catastrophic injury a telephone is required for communication with :
 - o Emergency personnel
 - o Referral hospital
 - o Family or friends as required
- Running water – hot and cold
- Visible and available EMERGENCY ACTION PLAN (EAP) with contact details
- Two physio plinths/examination couches
- A trauma board or any other suitable stretcher.
- Medications necessary to deal with all life-threatening situations.
- Suturing equipment
- Protective clothing and equipment
- Sharps container
- Basic life support equipment (as detailed above)
- Equipment for management of blood injuries and lacerations

Safety in the Playing Environment

- Advanced life support equipment (including medications and AED)
- Medical equipment, consumables and suitable medication to treat common musculo-skeletal injuries.
- Splints
- Equipment for neurological examination e.g. penlight, reflex hammer
- Blood pressure cuff
- Stethoscope
- Thermometer
- Glucometer
- ENT set
- Blankets/ Space blankets
- Fridge/ Freezer and ample available ice

Accessibility – Units for advanced care:

Appropriate emergency transport via a government ambulance should be readily available if it is not possible to have an ambulance with advanced care on standby. An ambulance e.g. St. John’s Ambulance at the playing venue is the ideal.

The trauma unit and spinal unit identified in the emergency action plan must be accessible to an injured player within 1 hour for a spinal unit and in less than an hour for other trauma requiring advanced care.

Advanced care	Bronze	Silver	Gold	Platinum
ALS equipped ambulance on site	X	X	X	✓
BLS equipped ambulance on site	X	X	X	✓
Access to Emergency medical services	✓	✓	✓	✓
Trauma unit (<30 mins)	✓	✓	✓	✓
Spinal unit (<1 hour)	✓	✓	✓	✓

Rugby organisations, rugby bodies or groups are expected to abide by the public safety policies as legislated by the HKSAR Government

Emergency Action Plan – Potential Catastrophic Injury:

An emergency action plan must be in place prior to a game commencing. This plan must be accessible, affordable, reproducible and current. This means that all personnel, equipment, emergency transport and referral partners are available at all games throughout the season. The emergency action plan should be amended prior to every fixture. Changes in personnel and their contact details should be clearly marked and their availability confirmed prior to commencement of the fixture. Where rosters of personnel are in place, ensure all relevant personnel are contacted and their availability confirmed prior to the match.

A document should be available that is easily accessible to all emergency personnel and team

Safety in the Playing Environment

management involved on match day, and should contain the following:

- Layout of the facility and access to the facility
- Equipment available
- Internal support personnel
- External support personnel
- Communication required
- Follow up required post catastrophic injury

Facility Details:

This should include the directions to the match venue – GPS co-ordinates/nearby landmarks if known would be beneficial to the emergency personnel – including details regarding access and access control procedures.

Facility layout including access to field and emergency vehicles:

This should also include the position of ground staff and other security staff that may assist quick access of emergency personnel.

Emergency Equipment:

A detailed list should be readily available and visible, detailing all equipment and emergency medication available. Its whereabouts should also be clearly defined.

Personnel:

Both host club/union personnel as well as emergency support personnel contracted for the event should have clearly defined roles and responsibilities delineated in the emergency action plan.

Communications:

Clear communication is the key to effective management of an injured player. Communication with regard to the role of each member of the medical team as well as communication between the internal; external and emergency unit personnel is imperative to ensure not only the optimal care of the player but also to ensure the players management and family are fully informed as to his/her situation.

Follow up:

A designated person, normally the Medical Team Leader for “Silver” Medical Liaison for “Gold” and “Platinum”, or the team coach or manager for “Bronze” categories, should be nominated to ensure all parties are kept informed as to the condition of the injured player until that time he is returned to the safekeeping of his nearest kin or designated team management member, whichever may be applicable at the time.

Safety in the Playing Environment

Emergency Action Plan	Designated Responsibility	Name	Contact	Done (✓/X)
Management : (Pitch Protocol)	Match/Venue Dr/ Highest qualified paramedic/ first aider or FIS Rugby Medic			
Management: (Medical room Protocol)	Match/Venue Dr/ Highest qualified paramedic/ first aider or FIS Rugby Medic			
Evacuation Protocol: (Field)	Match/Venue Dr/ Highest qualified paramedic/ first aider or FIS Rugby Medic			
Evacuation Protocol: (Medical room, Spinal unit, General Hospital, Trauma Unit)	Match/Venue Dr/ Highest qualified paramedic/ first aider or FIS Rugby Medic			
Communication: (Medical Manager, Ambulance service, Spinal unit/hospital)	Match/Venue Dr/ Highest qualified paramedic/ first aider or FIS Rugby Medic			
<ul style="list-style-type: none"> • In some instances as with the “Bronze” standard, the officiating medical support staff personnel may need to be assisted by the Manager, Coach, teacher or parents to fulfill some of these tasks mentioned above, e.g. assist in communication with the involved emergency medical personnel 				
<ul style="list-style-type: none"> • Sometimes, the most qualified support personnel might also be a ARFU FIS Medic, who would need to fulfill any or all of these roles 				
<ul style="list-style-type: none"> • It is important to ensure that first aid qualifications are kept updated and that each individual is responsible for ensuring this. 				

Safety in the Playing Environment

Management protocol: (Pitch)

The highest qualified medical staff takes control of coordinating and managing the injury situation on-field, including establishing correct communication signals and channels with the referees, match officials and relevant care givers.

Management protocol: (Medical room)

The highest qualified medical staff takes control of coordinating and managing the injury situation off the field, including establishing correct communication with emergency transport personnel and relevant care givers. This person should have access to all the relevant facility directions and layout information as stipulated.

Evacuation protocol: (Field)

The highest qualified medical staff takes control of coordinating and managing the removal of the injured player off the field to the medical room or station with the assistance of the relevant field-side care givers. This usually would be the same person who coordinates the pitch management protocol above.

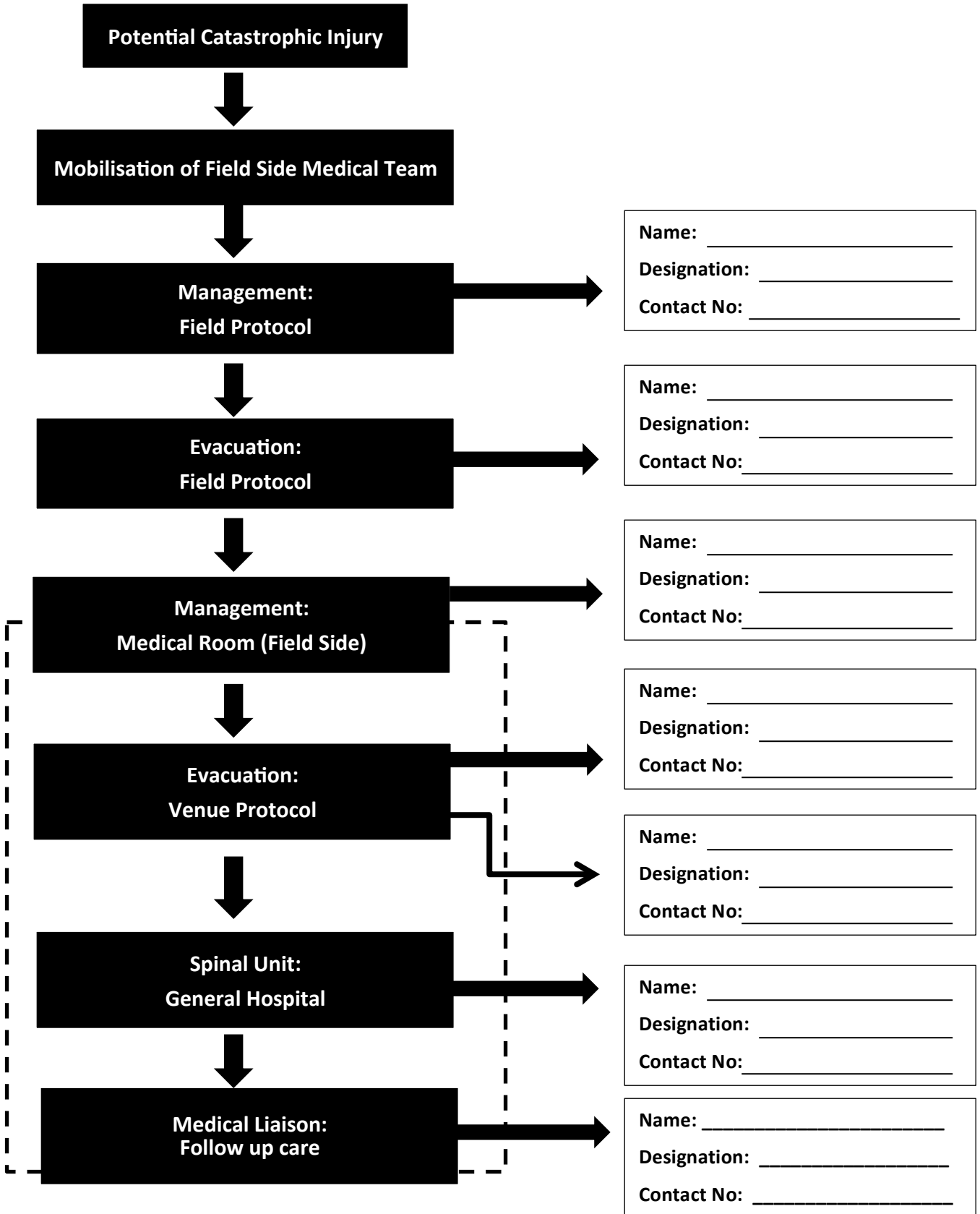
Evacuation protocol: (Medical room, Spinal unit/general hospital)

The highest qualified medical staff takes control of coordinating the transport of the injured player from the medical room or station to the relevant medical facility (trauma/spinal Unit), including establishing correct communication channels with the team manager, emergency personnel and designated emergency unit care givers. This usually would be the same person who coordinates the medical room management protocol above.

Communication protocol: (Medical Manager, Spinal unit/emergency room)

The highest qualified medical staff member takes control in establishing correct communication channels with the team manager, emergency personnel, designated emergency unit care givers, Medical Manager, as per the HKRU Serious Injury Protocol. This usually would be the same person who coordinates the medical room management protocol above.

Safety in the Playing Environment
EMERGENCY ACTION PLAN – RESPONSIBILITY MATRIX



Safety in the Playing Environment

Environmental conditions	Bronze	Silver	Gold	Platinum	Confirmed (v/X)
Temperature & Humidity (Heat Index)	✓	✓	✓	✓	
Storm Warnings (rain/thunder/typhoon)	✓	✓	✓	✓	
Telephone access	✓	✓	✓	✓	
Medical Personnel	Bronze	Silver	Gold	Platinum	
Pitch side Lead Doctor	X	X	X	✓	
Match Day Doctor	X	X	✓	✓	
Specialist services on site	X	X	X	✓	
Specialist services on standby	X	✓	✓	✓	
Emergency Nurse	X	X	X	✓	
Medical Liaison	X	X	✓	✓	
ICIS/ ICIR Level 3 Medics	X	X	X	✓	
ICIS/ ICIR level 2 Medics	X	✓	✓	✓	
Trained First Aider or FIS Rugby Medic	✓	✓	✓	✓	
Ambulance and staff on site	X	X	X	✓	
Ambulance and staff on standby (by phone)	✓	✓	✓	✓	
Equipment	Bronze	Silver	Gold	Platinum	
Spinal Board/Scoop stretcher & 4 body straps	✓	✓	✓	✓	
Cervical collars and head blocks	✓	✓	✓	✓	
BLS equipment (oxygen, simple airways, suction)	X	X	✓	✓	
AED	✓	✓	✓	✓	
HKRFU Concussion Guide	✓	✓	✓	✓	
Injury Report Form	✓	✓	✓	✓	
First Aid bag	✓	✓	✓	✓	
ALS Equipment (advanced airways, IV, drugs) in ambulance	X	X	✓	✓	
Medical Room	Bronze	Silver	Gold	Platinum	
Medical tent/station	✓	✓	✓	X	
Emergency treatment room	X	X	X	✓	
Advanced care	Bronze	Silver	Gold	Platinum	
ALS equipped ambulance on site	X	X	X	✓	
BLS equipped ambulance on site	X	X	X	✓	
Access to Emergency medical services	✓	✓	✓	✓	
Trauma unit (<1hour)	✓	✓	✓	✓	
Spinal unit (<1hour)	✓	✓	✓	✓	
Air transport (Helicopter)	X	X	X	X	

Safety in the Playing Environment

References:

1. South African Rugby Union – BokSmart 2010: <http://www.boksmart.co.za/content/playing-environment-safety>
2. World Rugby - Player Welfare: Guidelines & Documents: <http://www.playerwelfare.worldrugby.org/?section=13>
3. Australian Rugby Union – Medical Policy 2014: <http://www.rugby.com.au/ARUHQ/ARUMedicalPolicy.aspx>
4. Australian Sports Commission website:
http://www.ausport.gov.au/sportofficialmag/sport_safety/the_emergency_action_plan
5. Mass Participation Event Management for the Team Physician: A Consensus Statement. American College of Sports Medicine, 2003
6. National Weather Service, USA: http://www.nws.noaa.gov/om/heat/heat_index.shtml
7. Hong Kong Observatory: <http://www.hko.gov.hk/contente.htm>