PROTOCOL FOR THE ASSESSMENT & MANAGEMENT OF STUDENTS WITH CONCUSSION

CONCUSSION: Trauma that transmits force to the brain either directly or indirectly and results in temporary impairment of brain function. It reflects a functional rather than structural injury. Concussion can be sustained without losing consciousness.

Common early signs and symptoms of concussion:

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If a student shows any of the above signs (as a result of a direct blow to the head, face, neck or elsewhere on the body with a force being transmitted to the head) they have suspected concussion. It should be noted that the symptoms of concussion can first present at any time (but typically in the first 24 – 48 hours) after the incident that caused the suspected concussion.

Any student with a suspected concussion is recommended to accept an urgent assessment by a medical practitioner if present at the time of injury, or at Hospital. If admitted to hospital the Lodge should be informed. They should not be left alone and should not drive a motor vehicle. If they are on the sports field they should be removed from the field of play in a safe manner with particular regard to the potential of a neck injury.

On discharge from hospital (or following assessment by a medical practitioner) the student should follow the head injury advice given and arrange to see their College Nurse prior to resuming any activity.
Procedure

- Following any significant head injury the student or some-one acting on their behalf should inform the Lodge.

- If Medical assessment is undertaken the Lodge will inform the Duty Dean who will liaise with the student to ensure head injury advice (*Appendix 1*) has been issued and there is a nominated person available if they become unwell.

- The student should see their College Nurse the next day or the Monday following the injury if it occurs at the weekend.

- The College Nurse will commence an individual care plan for the student.

- The College Nurse will monitor and document the progress of the student dependent on the outcome of the consultation using her professional judgement and following the Graduated Return To Play (GRTP) protocol (*Appendix 2*) if the student wishes to resume sport.

- The College doctors (and the students GP if not registered at Jericho Health Centre) will be informed when a Care Plan and GRTP programme are instigated.

- The students GP will be sent a copy of the Care Plan when discharged.
Return to Contact Sport following Concussion.


For the purposes of this College’s Protocol a GRTP will be managed by a Medical Practitioner with the assistance of the College Nurse or other designated healthcare professional. Students must be seen by their GP or other designated Medical Practitioner on completion of the rehabilitation stages and before resuming full contact play (and at anytime during the rehabilitation process if the healthcare professional, or the student, has concerns about continuing symptoms).

Definitions:
“Healthcare Professional” means an appropriately qualified and practising nurse, physiotherapist, osteopath, chiropractor, paramedic.
“Medical Practitioner” means a doctor of medicine.

GRADUATED RETURN TO PLAY (GRTP)

- It is important there is physical and cognitive rest until there are no remaining symptoms.
- Activities that require concentration and attention should be avoided until symptoms have been absent for a minimum of 24 hours without medication that may mask symptoms i.e. headache tablets, anti-depressant medication, sleeping medication, caffeine.
- Provided the player with concussion or suspected concussion is, and remains, symptom free he may commence the GRTP.
- The Medical Practitioner may delegate to a Healthcare Professional the observation of the Player at each stage of the GRTP while remaining responsible for the management of the protocol.
- If a Medical Practitioner (with the assistance of a Healthcare Professional as applicable) is managing the recovery of the player it is possible for the player to return to play after a minimum of six days having successfully followed and completed each stage of the GRTP protocol.
- If any symptoms occur while progressing through the GRTP protocol the player must return to the previous stage and attempt to progress again after a minimum 24 hour period of rest has passed without the appearance of any symptoms.
- Identification of a GRTP should be undertaken on a case by case basis with the cooperation of the player.
- The modifying factors in Table 2 should also be taken into consideration as they may, in some cases, predict the potential for prolonged or persistent symptoms.
(Table 2)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>Number Duration (&gt;10 days) Severity</td>
</tr>
<tr>
<td>Signs</td>
<td>Prolonged loss of consciousness (&gt;1min) Amnesia</td>
</tr>
<tr>
<td>Sequelae</td>
<td>Concussive convulsions</td>
</tr>
<tr>
<td>Temporal</td>
<td>Frequency – repeated concussions over time Timing – Injuries close together in time “Reency” – recent concussions or traumatic brain injury</td>
</tr>
<tr>
<td>Threshold</td>
<td>Repeated concussions occurring with progressively less impact force or slower recovery after each successive concussion</td>
</tr>
<tr>
<td>Age</td>
<td>Child (&lt;10 years) and adolescent (10 to 18 years)</td>
</tr>
<tr>
<td>Co-and premorbidities</td>
<td>Migraine, depression or other mental health disorders, attention deficit hyperactivity disorder (ADHD), learning disabilities, sleep disorders</td>
</tr>
<tr>
<td>Medication</td>
<td>Psychoactive drugs, anticoagulants</td>
</tr>
<tr>
<td>Behaviour</td>
<td>Dangerous style of play</td>
</tr>
<tr>
<td>Sport</td>
<td>High risk activity, contact and collision sport, high sporting level</td>
</tr>
</tbody>
</table>

**GRTP Protocol**

There are six rehabilitation stages. After level 4 the player resumes full contact practice and the Medical Practitioner must first confirm that the player can take part. Full contact practice equates to return to play for the purposes of concussion. However return to play itself shall not occur until level 6 (Table 3)
**Table 3**

<table>
<thead>
<tr>
<th>Rehabilitation stage</th>
<th>Functional exercise at each stage of rehabilitation</th>
<th>Objective of each stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No activity, minimum 24 hours following the injury when managed by a medical practitioner, otherwise minimum 14 days following the injury</td>
<td>Complete physical and cognitive rest without symptoms</td>
<td>Recovery</td>
</tr>
<tr>
<td>2. Light aerobic exercise during 24 hour period</td>
<td>Walking, swimming or stationary cycling keeping intensity, &lt; 70% maximum predicted heart rate. No resistance training. Symptom free during full 24 hour period</td>
<td>Increase heart rate</td>
</tr>
<tr>
<td>4. Non-contact training drill during 24 hour period</td>
<td>Progression to more complex training drills e.g. passing drill. May start progressive resistance training. Symptom free during full 24 hour period</td>
<td>Exercise, co-ordination and cognitive load</td>
</tr>
<tr>
<td>5. Full Contact Practice</td>
<td>Following medical clearance participate in normal training activities</td>
<td>Restore confidence and assess functional skills by coaching staff</td>
</tr>
<tr>
<td>6. After 24 hours return to play</td>
<td>Player rehabilitated</td>
<td>Recovered</td>
</tr>
</tbody>
</table>

*(See also Flow Chart Appendix 2)*

**Return to exercise & non-contact sport following Concussion.**

Students will be assessed by the College Nurse or their GP before returning to any exercise or sporting activity. The GRTP protocol will be followed to the appropriate level identified on an individual basis depending on type of activity or sport to be undertaken.
APPENDIX 1.

Medical Practitioner to manage process

Does player have any symptoms remaining after no activity over a 24 hour period?

Symptom free

Symptom(s) present

Player has no symptoms remaining after no activity over a 24 hour period - **Level 1**

Rest until symptom free

Recurrence of symptoms - 24 hours rest

Renurrence of symptoms - 24 hours rest

Recurrence of symptoms - 24 hours rest

Recurrence of symptoms - 24 hours rest

Recurrence of symptoms - 24 hours rest

No recurrence of symptoms within 24 hours

Light aerobic exercise - **Level 2**

No recurrence of symptoms within 24 hours

Rugby-specific exercise - no head contact (running drills) **Level 3**

Non-contact training skills (passing and resistance training) **Level 4**

Medical Practitioner and player agree that player may participate in full contact practice **Level 5**

There can be a return to play - level 6
After receiving a head injury:

- Do not stay alone, have someone to check up on you, for the first 48 hours,
- Have plenty of rest and don’t do any physical or mental activity for at least the first 24 hours
- Make sure you have access to help if you become more unwell
- Avoid alcohol or drugs
- Do not drive
- Follow the doctor or hospital's advice on what medicines you can take

You should seek medical help urgently if any of the following symptoms occur:

- Severe headache
- Vomiting
- Drowsiness
- Confusion or disorientation (getting muddled, not knowing where you are or what day it is)
- Loss of balance
- Weakness in arms or legs
- Any problems with your eyesight e.g. blurred vision
- Feeling dizzy
- Collapsing or passing out
- Clear fluid coming out of your ear or nose
- Bleeding from one or both ears
- New deafness in one or both ears

You may experience some other symptoms over the next few days, which should disappear in the next two weeks. These include a mild headache, feeling sick (without vomiting), dizziness, irritability or bad temper, problems concentrating or with your memory, tiredness, lack of appetite or problems sleeping.

If these symptoms don’t go away after 2 weeks then you should see your GP

Most people recover quickly and experience no long term problems. Some people however only develop problems after a few weeks or months. If you start to feel things are not quite right then you should see your GP
What to do if you have a head injury

Your brain is important to you and to us

If you have a head injury (as a result of a direct blow to the head, face, neck or elsewhere on the body with a force being transmitted to the head) it is recommended that you inform the Lodge and follow the Head Injury Advice.

Some head injuries can result in Concussion and if any of the following symptoms are present you should go to hospital or see a doctor

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The symptoms of concussion can first present at any time after the incident that caused the suspected concussion (but typically in the first 24 – 48 hours). You do not have to lose consciousness to have concussion.

Following any head injury, even if you’re seen at the hospital or by a doctor, you are advised to see the College Nurse the next day or the following Monday if the injury occurs at the weekend. If you are admitted to hospital the Lodge should be informed.

You should not return to any sport or physical activity.