



Dr John Mayhew

Clinical Director Sovereign Insurance
Team Doctor Vodafone Warriors

Rules for the Sports Field - Main Session (Workshop options scheduled)

Saturday, 22 June 2013

Start 9:35am

Duration: 20mins

Baytrust



 
Rotorua GP CME 2013

General Practice Conference & Medical Exhibition

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Rules for the Sports Field



How does is it happen?



Rules for the Sports Field

- * Are there any?
- * What are they?
- * What are they based on?
- * What happens in professional sport
- * What are the issues and problems?

CONSENSUS STATEMENT

Consensus Statement on Concussion in Sport—the 4th International Conference on Concussion in Sport Held in Zurich, November 2012

Paul McCrory, MBBS, PhD, Willem Meeuwisse, MD, PhD, Mark Aubry, MD, Bob Cantu, MD, Jiri Dvorak, MD, Ruben J. Echemendia, PhD, Lars Engebretsen, MD, PhD, Karen Johnston, MD, PhD, Jeffrey S. Kutcher, MD, Martin Raftery, MBBS, Allen Sills, MD, and
Coauthors: Brian W. Benson, MD, PhD, Gavin A. Davis, MBBS, Richard G. Ellenbogen, MD, Kevin M. Guskiewicz, PhD, ATC, Stanley A. Herring, MD, Grant Iverson, PhD, Barry D. Jordan, MD, MPH, James Kissick MD, CCFP, Dip Sport Med, Michael McCrea, PhD, ABPP, Andrew S McIntosh, MBIomedE, PhD, David L. Maddocks, LLB, PhD, Michael Makdissi, MBBS, PhD, Laura Purcell, MD, FRCPC, Margot Putukian, MD, Michael Turner MBBS, Kathryn Schneider, PT, PhD, Charles H. Tator, MD, PHD

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Preamble

This paper is a revision and update of the recommendations developed following the 1st (Vienna 2001), 2nd (Prague 2004) and 3rd (Zurich 2008) International Consensus Conference on Concussion in Sport and is based on the deliberations at the 4th International Conference On Concussion In Sport held in Zurich, November 2012.^{1–3}

The new 2012 Zurich Consensus statement is designed to build on the principles outlined in the previous documents and to develop further conceptual understanding of this problem using a formal consensus-based approach. A detailed description of the consensus process is outlined at the end of this document under the “background” section. This document is developed for use by physicians and health care professionals primarily who are involved in the care of injured athletes, whether at the recreational, elite, or professional level.

While agreement exists pertaining to principal messages conveyed within this document, the authors acknowledge that the science of concussion is evolving and therefore management and return to play decisions remain in the realm of clinical judgment on an individualized basis. Readers are encouraged to copy and distribute freely the Zurich Consensus document, the Concussion Recognition Tool (CRT), the Sport Concussion Assessment Tool version 3 (SCAT3), and/or the Child-SCAT3 card and neither is subject to any restriction, provided it is not altered in any way or converted to a digital format. The authors’ request that the document and/or the accompanying tools be distributed in their full and complete format.

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See Appendix I for a full list of affiliations.

See Appendix I for a full list of disclosures.

Corresponding author: Paul McCrory, MBBS, PhD, The Florey Institute of Neuroscience and Mental Health, Melbourne Brain Centre – Austin Campus, 245 Burgundy St, Heidelberg Vic 3084 (e-mail: paulmccr@bigpond.net.au).

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This consensus paper is broken into a number of sections:

- (a) A summary of concussion and its management, with updates from the previous meetings.
- (b) Background information about the consensus meeting process.
- (c) A summary of the specific consensus questions discussed at this meeting.
- (d) The Consensus paper should be read in conjunction with the SCAT3 assessment tool, the Child-SCAT3 and the Concussion Recognition Tool (designed for lay use).

SECTION 1: SPORT CONCUSSION AND ITS MANAGEMENT

The Zurich 2012 document examines sport concussion and management issues raised in the previous Vienna 2001, Prague 2004, and Zurich 2008 documents and applies the consensus questions from Section 3 to these areas.^{1–3}

Definition of Concussion

Panel discussion regarding the definition of concussion and its separation from mild traumatic brain injury (mTBI) was held. There was acknowledgement by the Concussion in Sport Group (CISG) that although the terms mild traumatic brain injury (mTBI) and concussion are often used interchangeably in the sporting context and particularly in the US literature, others use the term to refer to different injury constructs. Concussion is the historical term representing low velocity injuries that cause brain “shaking” resulting in clinical symptoms and which are not necessarily related to a pathological injury. Concussion is a subset of TBI and the term concussion will be used in this document. It was also noted that the term *commotio cerebri* is often used in European and other countries. Minor revisions were made to the definition of concussion and it is defined as follows:

Concussion is a brain injury and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces. Several common features that

Definition of concussion

- * Concussion is a brain injury and is defined as a complex pathophysiological process affecting the brain, induced by biomechanical forces
- * Symptoms-somatic, cognitive and emotional
- * Physical signs-LOC, amnesia
- * Behavioural changes-irritability
- * Cognitive impairment-slowed reaction times
- * Sleep disturbance-insomnia



The tackle is the most dangerous area for head injury



Initial assessment



Assessment on side-line or on field

- * First aid issues-airway/neck
- * Remove from field
- * Assess concussive injury using SCAT 3 or similar
- * Determine need if any for imaging
- * Monitor and organise on going care-can be an evolving injury



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The logo for Rotorua GP CME 2013. It features the word "Rotorua" in a large, stylized font, followed by "GP CME 2013" in a smaller, bold font. To the right is the NZMA logo, which includes the text "NZMA" and "New Zealand Medical Association".

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Assessment

- * The history is often obvious- in elite sport the video replay is helpful!
- * Exclude other pathology and immobilise the neck in unconscious player
- * There are sports specific protocols....

Appendix II:

A printable PDF of the SCAT3 can be downloaded at: <http://links.lww.com/JSM/A30>.






Sport Concussion Assessment Tool – 3rd Edition

For use by medical professionals only

Name _____

Date/Time of Injury _____
Date of Assessment _____

Examiner _____

What is the SCAT3?

The SCAT3 is a standardized tool for evaluating injured athletes for concussion and can be used in athletes aged from 13 years and older. It supersedes the original SCAT and the SCAT2 published in 2005 and 2009, respectively. For younger persons, ages 12 and under, please use the Child SCAT3. The SCAT3 is designed for use by medical professionals; if you are not qualified, please use the Sport Concussion Recognition Tool. Reasonable baseline testing with the SCAT3 can be helpful for interpreting post-injury test scores.

Specific instructions for use of the SCAT3 are provided on page 3. If you are not familiar with the SCAT3, please read through these instructions carefully. This tool may be freely copied in its current form for distribution to individuals, teams, groups and organisations. Any revision or any reproduction in a digital form requires approval by the Concussion in Sport Group.

NOTE: The diagnosis of a concussion is a clinical judgment, ideally made by a medical professional. The SCAT3 should not be used solely to make, or exclude, the diagnosis of concussion in the absence of clinical judgement. An athlete may have a concussion even if their SCAT3 is "normal".

What is a concussion?

A concussion is a disturbance in brain function caused by a direct or indirect force to the head. It results in a variety of non-specific signs and/or symptoms (some examples listed below) and most often does not involve loss of consciousness. Concussion should be suspected in the presence of **any one or more** of the following:

- Symptoms (e.g., headache), or
- Physical signs (e.g., unsteadiness), or
- Impaired brain function (e.g., confusion), or
- Abnormal behaviour (e.g., change in personality).

SIDELINE ASSESSMENT

Indications for Emergency Management

NOTE: A hit to the head can sometimes be associated with a more serious brain injury. Any of the following warrants consideration of activating emergency procedures and urgent transportation to the nearest hospital:

- Glasgow Coma score less than 15
- Deteriorating mental status
- Potential spinal injury
- Progressive, worsening symptoms, or new neurologic signs

Potential signs of concussion?

If any of the following signs are observed after a direct or indirect blow to the head, the athlete should stop participation, be evaluated by a medical professional and **should not be permitted to return to sport the same day** if a concussion is suspected.

Any loss of consciousness?	☐ Y ☐ N
If so, how long?	☐ Y ☐ N
Balance or motor incoordination (stumbles, slow/laboured movements, etc)?	☐ Y ☐ N
Disorientation or confusion (inability to respond appropriately to questions)?	☐ Y ☐ N
Loss of memory	☐ Y ☐ N
If so, how long?	☐ Y ☐ N
Before or after the injury?	☐ Y ☐ N
Blank or vacant look	☐ Y ☐ N
Visible facial injury in combination with any of the above	☐ Y ☐ N

Glasgow coma scale (GCS)

Best eye response (E)

No eye opening	☐ 1
Eye opening in response to pain	☐ 2
Eye opening to speech	☐ 3
Eyes opening spontaneously	☐ 4

Best verbal response (V)

No verbal response	☐ 1
Incomprehensible sounds	☐ 2
Inappropriate words	☐ 3
Confused	☐ 4
Oriented	☐ 5

Best motor response (M)

No motor response	☐ 1
Extension to pain	☐ 2
Abnormal flexion to pain	☐ 3
Flexion/Withdrawal to pain	☐ 4
Localizes to pain	☐ 5
Obeys commands	☐ 6

Glasgow Coma score (E + V + M)

GCS should be recorded for all athletes in case of subsequent deterioration.

Maddocks Score³

When going to ask you a few questions, please listen carefully and give your best effort.

Modified Maddocks questions (1 point for each correct answer)

What venue are we at today?	☐ 0 ☐ 1
Which half is it now?	☐ 0 ☐ 1
Who scored last in this match?	☐ 0 ☐ 1
What team did you play last week/game?	☐ 0 ☐ 1
Did your team win the last game?	☐ 0 ☐ 1

Maddocks score

Maddocks score is validated for sideline diagnosis of concussion only and is not used for renal testing.

Notes: Mechanism of Injury (if known what happened?) _____

Any athlete with a suspected concussion should be **REMOVED FROM PLAY**, medically assessed, monitored for deterioration (i.e., should not be left alone) and should not drive a motor vehicle until cleared to do so by a medical professional. No athlete diagnosed with concussion should be returned to sports participation on the day of injury.

Concussion investigations

- * Xrays-skull, cervical spine
- * CT/MRI-add little to concussion management but exclude intra-cerebral or structural lesion
- * Force plate technology-in first 72 hours
- * Tissue and genetic markers eg. ApoE promotor gene, Tau polymerase..

Sports protocols

- * Rugby-allows 5 min temporary replacement for assessment.
- * AFL-allows 20 min. temporary replacement
- * Rugby league/NRL-no concussed player able to play but no temporary substitution allowed...
- * Boxing-no protocols!

NEUROPSYCHOLOGICAL ASSESSMENT

- * Computerised tools are available-most teams do pre-season baseline testing-not mandatory
- * Cogsport testing
- * Impact testing
- * Formal NP testing in 'difficult cases'

Concussion Management

- * Physical and cognitive rest.
- * No RTP on day concussed
- * Graduated RTP protocol



Concussion Management

- * Most cases resolve 7-10 days
- * Drugs have minimal role-avoid alcohol
- * Protective equipment-head gear and mouthguards-no real evidence of benefit.
- * No evidence of gender bias



Be aware of other injuries



Younger athletes



Other issues

- * Children and adolescents need age appropriate assessment-Child SCAT3
- * Elite versus Nonelite
- * CTE-causal link to repeated concussions not clearly established
- * Sports rule change