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NSW BRAIN INJURY REHABILITATION PROGRAM FORUM

Easy Advocacy Rows to Hoe: Concussion in Sport?

Liverpool Hospital, Sydney - 6th March 2014

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Executive Officer
Brain Injury Australia

2010 - 14.4 million (82%) ≥ 1 physical activities for exercise, recreation or sport

2010 - 7.6 million (43%) attended ≥ 1 sporting events

2009 - aggregate TV audience for NRL season ≈ 128 million

"Only in sport? The qualification would seem meaningless to many Australians. What also is there that matters as much as sport?"

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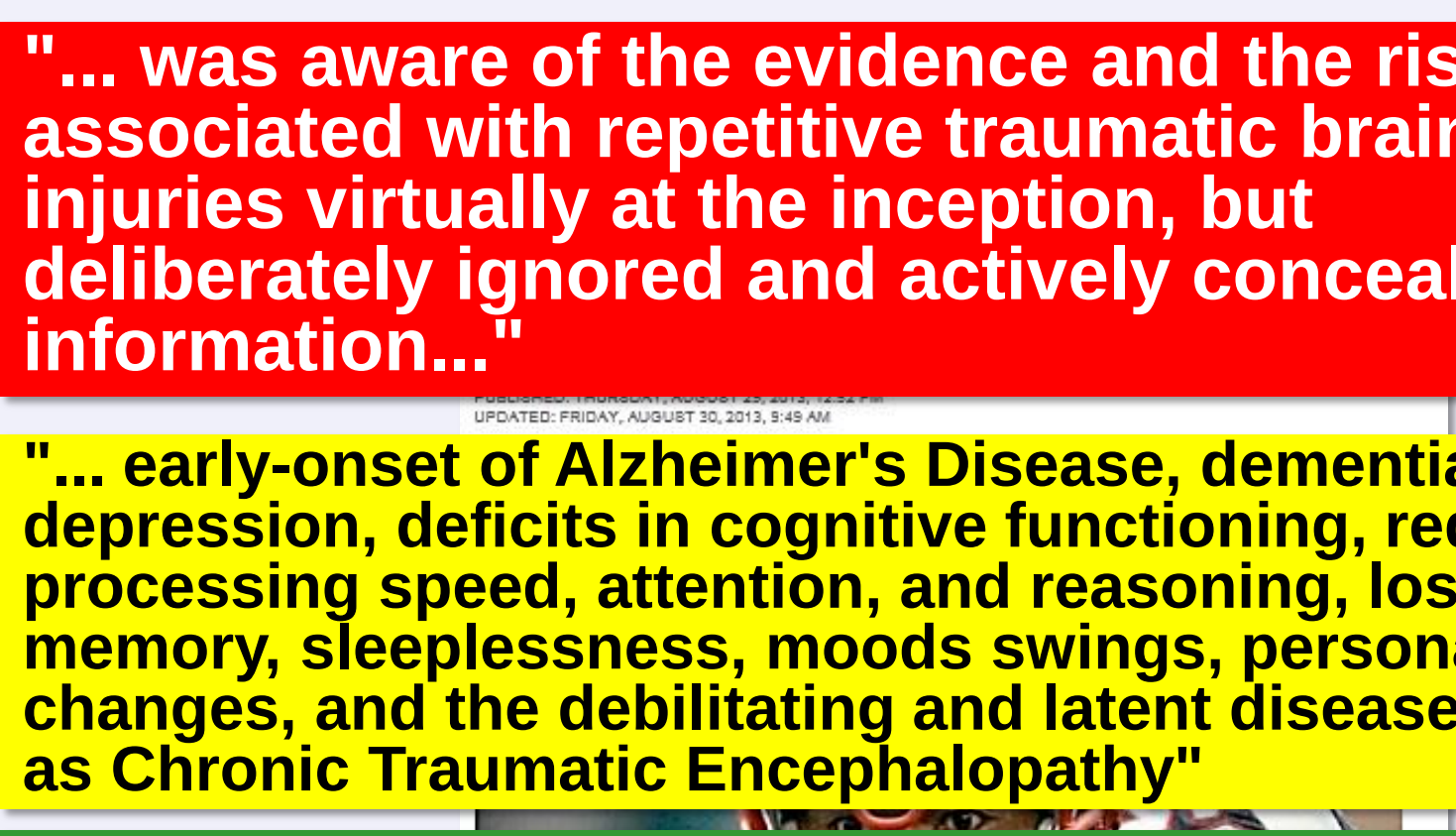
"... was aware of the evidence and the risks associated with repetitive traumatic brain injuries virtually at the inception, but deliberately ignored and actively concealed the information..."



"... early-onset of Alzheimer's Disease, dementia, depression, deficits in cognitive functioning, reduced processing speed, attention, and reasoning, loss of memory, sleeplessness, moods swings, personality changes, and the debilitating and latent disease known as Chronic Traumatic Encephalopathy"

"Even if only 10 percent of retired NFL football players eventually receive a qualifying diagnosis, it is difficult to see how the monetary award fund would have the funds available over its lifespan to pay all claimants..."

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2004-2005 - ≈ 3,000 hospitalisations for concussion from sport

2006 (US) - # unreported sports-related concussions ≈ 6-10 X the 1.6 - 3.8 million disclosed p.a.

"Most individuals with concussion - approximately 75% - do not seek attention from a medical facility or medical practitioner unless the symptoms worsen or persist" (2006, Barry Willer et al.)

2005 - 90% of concussed patients had not recognised their injury

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“are not interchangeable”

“refer to different injury constructs”

“reflect a functional disturbance rather than structural injury”

“debate that has been going on for more than 300 years without definitive resolution”

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Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012

Paul McCrory,[1] Willem H Meeuwisse,[2,3] Mark Aubry,[4,5,6] Bob Cantu,[7,8] Jiří Dvořák,[9,10,11] Ruben J Echemendia,[12,13] Lars Engebretsen,[14,15,16] Karen Johnston,[17,18] Jeffrey S Kutcher,[19] Martin Raftery,[20] Allen Sills,[21] Brian W Benson,[22,23,24] Gavin A Davis,[25] Richard G Ellenbogen,[26,27] Kevin Guskiewicz,[28] Stanley A Herring,[29,30] Grant L Iverson,[31] Barry D Jordan,[32,33,34] James Kissick,[6,35,36,37] Michael McCrea,[38] Andrew S McIntosh,[39,40,41] David Maddocks,[42] Michael Makdissi,[43,44] Laura Purcell,[45,46] Margot Putukian,[47,48] Kathryn Schneider,[49] Charles H Tator,[50,51,52,53] Michael Turner[54]

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 Conferences on Concussion

tual 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 primarily for use by physicians and healthcare professionals 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 (RTP) decisions remain in the realm of clinical judgement on an individualised basis. Readers are encouraged to copy and distribute freely the Zurich Consensus document, the Concussion

SECTION 1: SPORT CONCUSSION AND ITS MANAGEMENT

The Zurich 2012 document examines the sport concussion and management issues raised in the previous Vienna 2001, Prague 2004 and Zurich

brain injury (mTBI) was held. There was acknowledgement by the Concussion in Sport Group (CISG) that although the terms 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 that are not necessarily related to a pathological injury. Concussion is a subset of TBI and will be the term 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, which is defined as follows:

"Concussion is a subset of TBI and will be the term used in this document…"

Consensus Statement on Concussion in Sport – the 3rd International Conference on Concussion in Sport held in Zurich, November 2008

P McCrory, W Meeuwisse, K Johnston, J Dvorak, M Aubry, M Molloy, R Cantu

Consensus panellists (listed in alphabetical order): In addition to the authors above, the consensus panellists were Broglio S, Davis G, Dick R, Dvorak J, Echemendia R, Gioia G, Guskiewicz K, Herring S, Iverson G, Kelly J, Kissick J, Makdissi M, McCrea M, Ptito A, Purcell L, Putukian M. Also invited but not in attendance: Bahr R, Engebretsen L, Hamlyn P, Jordan B, Schamasch P

"…Biomechanical studies have shown a reduction in impact forces to the brain with the use of head gear and helmets, but these findings have not been translated to show a reduction in concussion incidence…"

Young players at AJAX Junior Football Club must wear helmets and mouthguards. Photo: Justin McManus

“Hundreds of children have been treated for sports-related head injuries at the Royal Children's Hospital in the past six months and many are returning to the field after a concussion, contrary to guidelines…”

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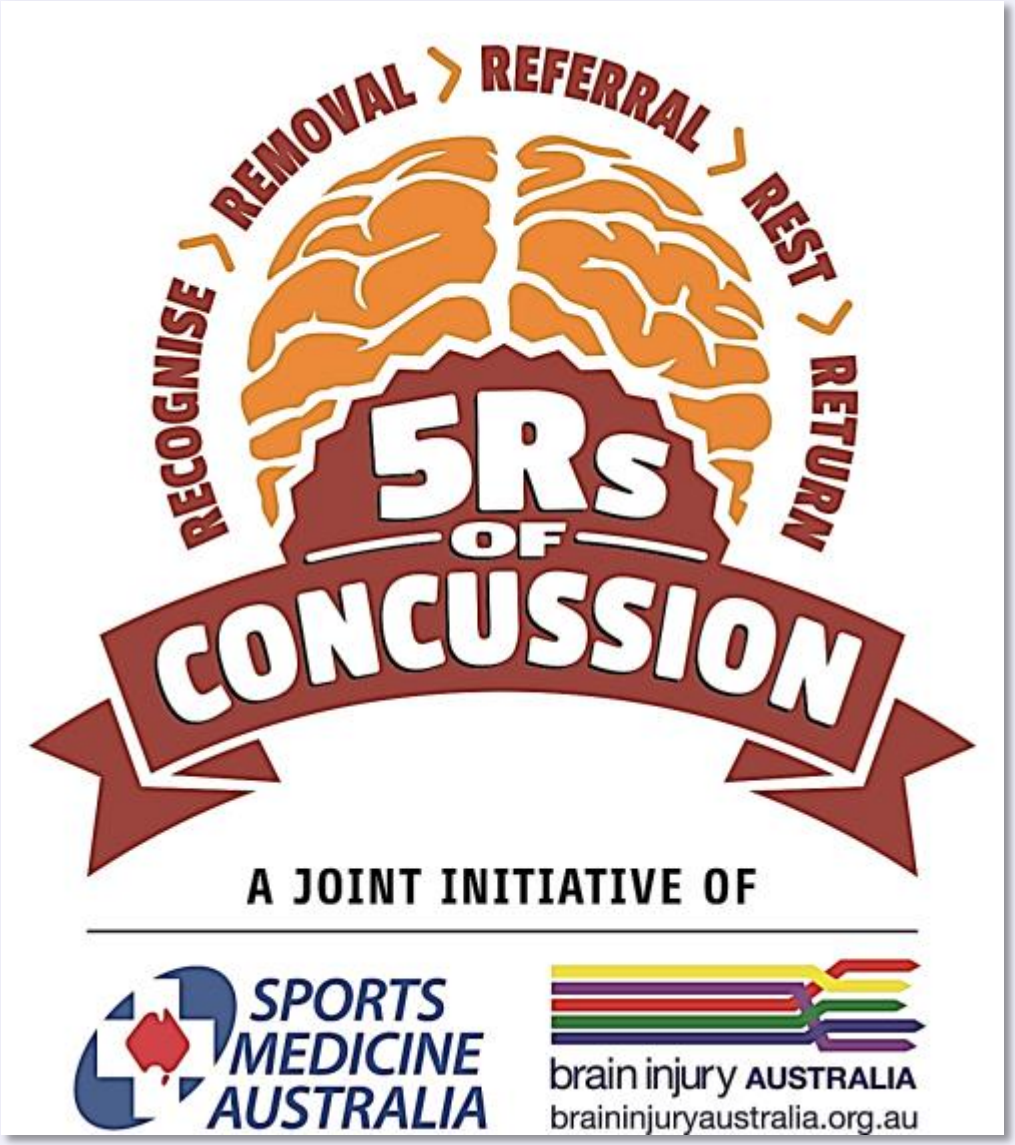
Male early 20s "v. good" footballer , unconscious ≈10 secs, laceration R eyebrow, "attended to" @ sideline, sent back into game. Post-game →ED; laceration stitched, no scans, investigations, returned to work, drove

Day 7 - workplace = "not himself", review at GP w/ headaches, fatigue, poor memory. HI leaflet. No referrals

Day 11 - (new) GP; v. forgetful, poor motor control, vague, headaches. History = knocked out at footy 5-6 times/ this season "alone"

Day 13; GP w/ headaches, blurred vision. Sutures removed. CT normal. Refer brain injury unit. MRI normal

9 mths; res. rehab. 3 days/ week, ["still"] w/ blurred vision, poor bal., coordination, cog. fatigue, problems w/ attention/concentration, difficulty w/ verbal memory, lowered mood = antidepressants. No return to work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