

World Rugby Medical Commission Meeting

– 16th November 2021



Welcome to MCC 2021






Objective data about impact in the game
Information about the community game
Risk factors in women's rugby





prevent
biometrics

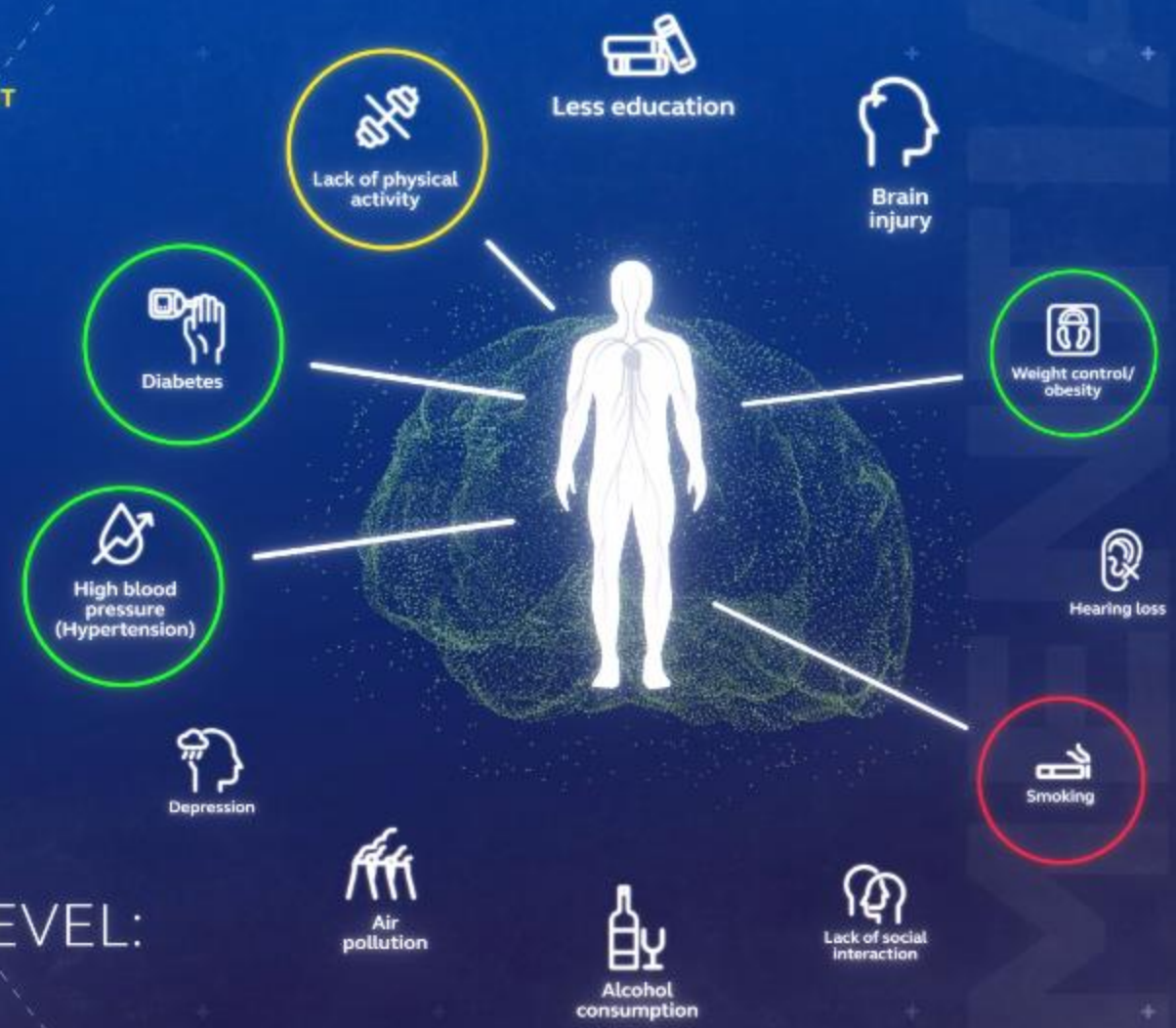
A photograph of a middle-aged man with grey hair, wearing a blue sports jacket with white stripes on the sleeves, leaning forward and speaking to someone. In the background, the back of a person's head wearing a black scrum cap is visible. The scene is outdoors on a grassy field.

Collaborate with Players
Associations to create network for
retired players

Promote central role for rugby
in providing social network for
retired players.

RED = HIGH RISK AREA
YELLOW = RISK AREA FOR IMPROVEMENT
GREEN = RISK AREA MANAGED

INDIVIDUAL
RISK PROFILE:
HEART HEALTH
DEMENTIA RISK LEVEL:



Neuroflex – saccade analytics

- Virtual Reality Occulomotor testing
 - Smooth pursuit (head fixed & free)
 - Saccades, Antisaccades
 - Active Visual VOR (vert & horiz)
 - Nystagmus (optokinetic & spont)
- Validity, re-test reliability
- Effect of exercise
- Baseline testing
- HIA1, HIA2, HIA3 - GRTP



EyeGuide Focus

- 10-second, figure of 8, smooth pursuit test.
- Portable, simple, cost-effective
- Validity, re-test reliability
- Effect of exercise
- Trial in URC 2021-2022
- Baseline testing
- 85 elite games, 16 teams
- Crit1, HIA1, HIA2 – Orthopaedic control



URC UNITED RUGBY
CHAMPIONSHIP



INDIVIDUALISE RTP USING ICC

- 40% of ICC referrals were solely for RTP within 10 days (single risk)
- 55% of ICC referrals included RTP within 10 days criteria (as a single and multiple risk)
- 45% of ICC referrals no 10-day link
- 11% of '10 day' ICC referrals (single and multiple) did not return to play within 10 days (Cross - 1% RTP)

RWC 2019

- Feedback (RWC) from users – 0 – 5 scale with 5 being excellent
 - Team Doctors – 4.65 / 5
 - Match Day Doctors – 4.5 / 5



WHAT IS THE IMPACT OF MANDATING?

Mandating impacts negatively on reporting and return to play plus ...

Mandating - impact on return to play in Rugby

- Pre-GRTP - 27% of players RTP within 6 days (despite mandating a 3-week stand-down period – Regulation 10)
- 2 years post-GRTP - 7% of players RTP within 6 days
- 3 years post-GRTP - 0% of players RTP within 6 days.

Figure 8

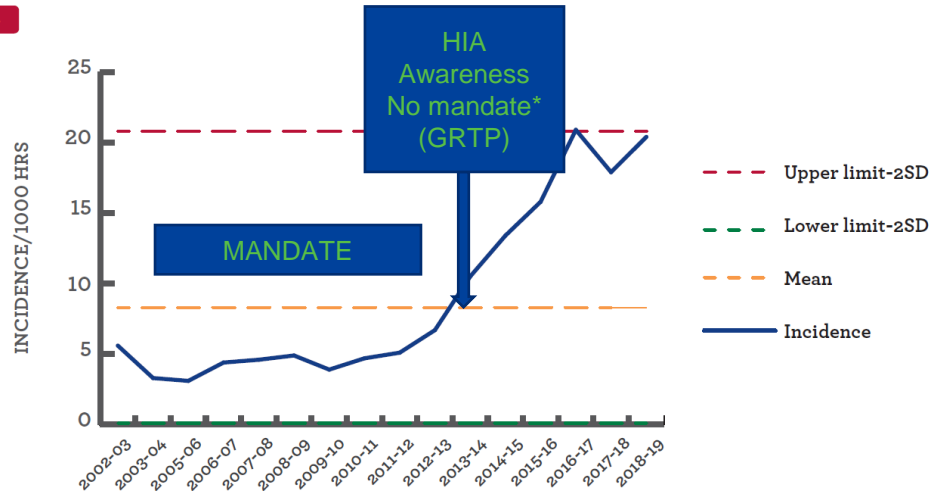


Figure 8: Incidence per 1000 player hours of reported match concussions by season with mean \pm 2 standard deviations.

2016 Consensus Statement

The time frame for return to sport may vary with player age, history, level of sport, etc, and management must be individualised.



Graduated Return to Play

Is the content and duration of the graduated return to play protocol after concussion demanding enough? A challenge for Berlin 2016

Simon Kemp,¹ Jon Patricios,^{2,3,4} Martin Raftery⁵

INTRODUCTION

Determining the appropriate starting point and duration of the return-to-play (RTP) process after injury is fundamental to clinical sports medicine. The most commonly cited RTP framework after concussion is outlined as part of all international concussion consensus statements. This framework is a key element of concussion management across all levels of sport and provides a 'cornerstone' of current education initiatives. In Rugby Union, RTP guidelines last underwent a major update by World Rugby, the International Federation, in 2011, and are consistent with international concussion consensus.

trend for concussed Australian rules footballers to have twice the rate of injuries of matched non-concussed players on RTP.⁴ These increased relative risks of subsequent injury are noteworthy, particularly when contextualised against the pre-concussion risk of injury in professional rugby and soccer (figure 1).

POSSIBLE MECHANISMS FOR THE INCREASED RISK OF MUSCULOSKELETAL INJURY AFTER CONCUSSION

The results from these studies raise a number of questions.

What is the underlying mechanism for

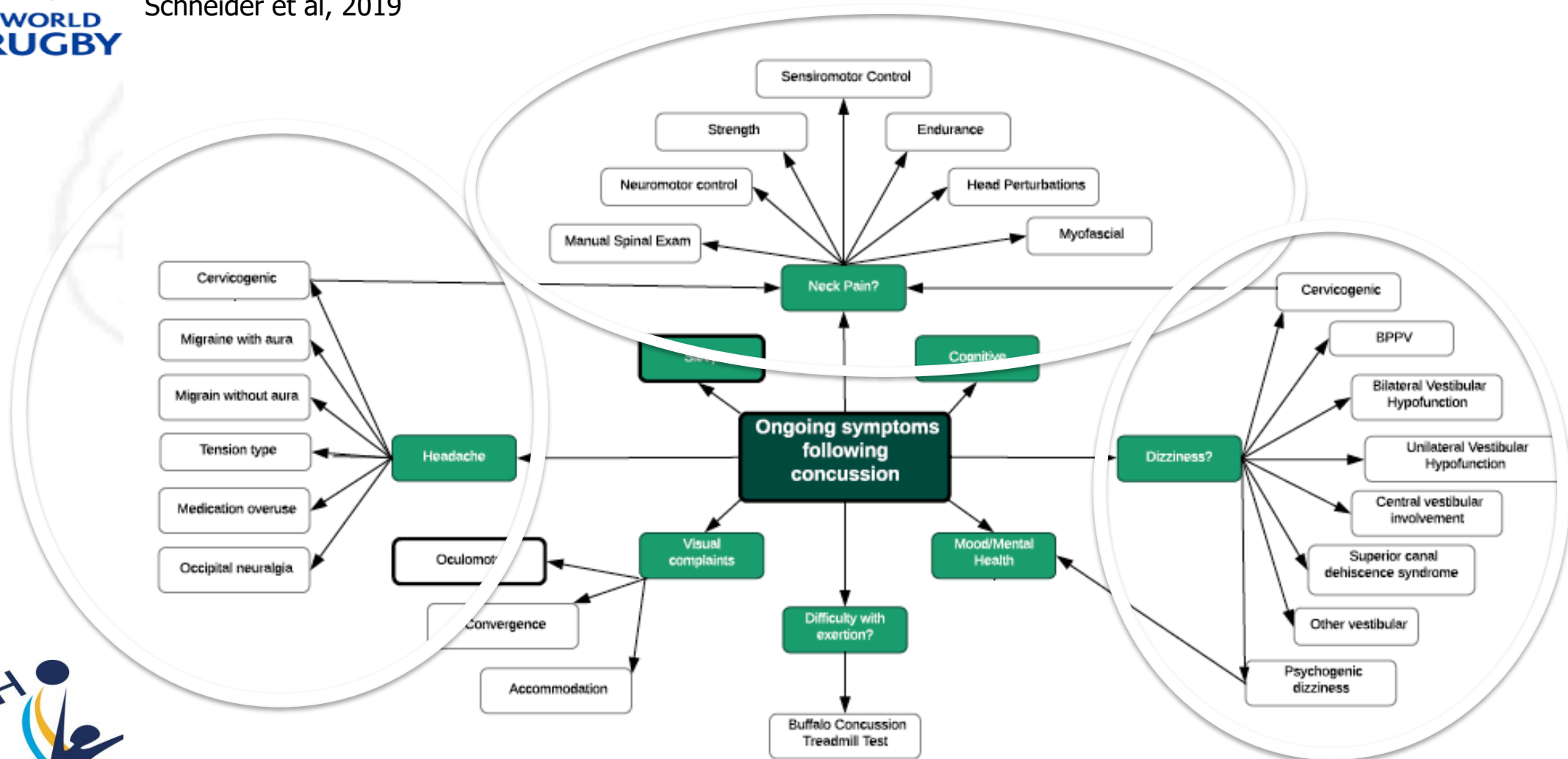
Finally, it may be that the length of RTP is too short. Typically, the time to RTP after concussion is shorter than for the majority of other injuries. The average time taken for professional rugby players to return after concussion in the Cross study³ is 11 days compared to an average of 21 days for musculoskeletal injury in the same cohort.⁵

ARE THE CURRENT TOOLS USED TO ASSESS RECOVERY ADEQUATE?

In light of this increased risk of injury following RTP, are the recommended assessment tools in the SCAT3 and the common computerised neurocognitive testing systems sufficiently sensitive and repeatable to detect subtle symptom, balance and cognitive deficits?

- Currently, assessments of recovery during the GRTP performed on an athlete at rest may not be valid predictors of in-game injury risk, and the benefit of postexertional testing has been demonstrated.⁶
- Neuromuscular control deficits have been observed experimentally, under dual-task conditions, for example,

Areas of consideration





WORLD
RUGBY