Canadian Academy of Sport and Exercise Medicine | Académie canadienne de médecine du sport et de l'exercice

The Canadian Academy of Sport and Exercise Medicine (CASEM) Response to Parachute Canada's Baseline Testing Statement.

The Canadian Academy of Sport and Exercise Medicine (CASEM) represents physician-experts in management of physical activity-related injuries and illnesses including Sport Related Concussions (SRC).

Several CASEM members are also members of the Concussion in Sport Group (CISG) which authored the 5th International Consensus Statement on Concussion in Sport (Berlin, 2016) and reviewed the published systematic reviews that informed their consensus, and that are referenced in Parachute Canada's 'Statement on Concussion Baseline Testing in Canada'.

CASEM has reviewed Parachute Canada's 'Statement on Concussion Baseline Testing in Canada', and has concerns regarding some of the messaging and possible unintended impact.

Parachute Canada's statements:

1.Baseline testing of youth and adult recreational athletes using any tool or combination of tools is not required to provide post-injury care of those who sustain a suspected or diagnosed concussion. Baseline testing is not recommended in youth athletes regardless of the sport or level of play.

2. Baseline testing is often used for adult national team-affiliated athletes where teams have access to licensed healthcare professionals who provide care to these athletes on a regular basis. If baseline testing using certain tests is considered for selected adult athletes, it is recommended that the medical teams caring for these athletes have access to the licensed healthcare professionals who are optimally trained and licensed to administer and interpret these tests.

CASEM has reviewed Davis et al (2017) *"What is the difference in management in children as compared with adults? A systematic review"* (designed and published to inform the CSIG), and supports its recommendations on Computerized Neuropsychological Tests (CNT).

These are:

1. At this time, the widespread routine use of baseline CNT is not recommended in children and adolescents, given problems with reliability over time and insufficient evidence of diagnostic or prognostic value.
2. CNT may be used under appropriate qualified supervision as an adjunct to clinical assessment in adolescents with SRC.
3. When using CNT in children and adolescents with SRC, reference to normative data should be done cautiously.
4. In children and adolescents with SRC, CNT should not be used in isolation in concussion management, but, if used, should be combined with a multimodal clinical assessment.
5. Further research is required to assess the utility of CNT in SRC in children and adolescents, in assessing diagnosis and recovery from concussion.

The 5th International Consensus Statement on Concussion in Sport (Berlin, 2016) states:
"*Baseline or pre-season NP testing was considered by the panel and was not felt to be required as a mandatory aspect of every assessment; however, it may be helpful or add useful information to the overall interpretation of these tests. It also provides an additional educative opportunity for the healthcare provider to discuss the significance of this injury with the athlete*".

CASEM acknowledges the important issue of improper promotion of systematic baseline CNT testing of youth, especially as a stand-alone approach, and supports proper dissemination of information and education of the public.

Parachute Canada's first statement however does not accurately reflect Davis et al' recommendations. It incorrectly paints all youth athletes (children and adolescents) with the same brush-stroke and makes a generalizing and oversimplified recommendation on use of baseline testing that is not reflective of best practice in many individual cases or sporting environments.

Parachute Canada's second statement further differentiates between youth/adult recreational athletes and adult national team-affiliated athletes, which to CASEM's knowledge has no clear scientific basis, and is not addressed in the 5th Consensus Statement on Concussion in Sport. It is important to note that many national teams have athletes below the age of 18.

Finally, for a number of years, CASEM and the Canadian Concussion Collaborative (CCC) have been promoting the use of efficient multidisciplinary collaborations for the implementation of good concussion protocols in competitive sport across the spectrum or urban and rural settings.

This multidisciplinary collaboration extends beyond the physician and nurse practitioner to include a number of allied healthcare professionals (e.g. athletic therapists, physiotherapists, etc…) with developed skills and expertise in concussion identification and recovery tracking.

Thank you.

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