evaluation tool used by clinicians to evaluate athletes with suspected concussions.

Objective To describe normative baseline SCAT5 scores among United States Olympic athletes.

Design Retrospective descriptive epidemiology.

Setting United States Olympic and Paralympic Sports Medicine Centers.

Participants Two hundred fifty-seven Olympic athletes (48.2% female, mean age $\pm$ standard deviation (SD) = 22.5 ± 4.8 years) representing 19 sport federations underwent baseline SCAT5 testing between April 2018 and July 2019.

Main Outcome Measurements Baseline SCAT5 scores of healthy Olympic athletes. T-tests were used to compare scores by sex.

Results Athletes reported a mean of 4.0 ± 4.9 symptoms (median=2, IQR=0–6) with an average severity score of 7.9 ± 12.3 (median=2, interquartile range=0–10). Most (71.8%) athletes reported never having sustained a concussion prior to testing; 17.5% reported one prior concussion (range=0–10 reported concussions). Mean scores $\pm$ SD for major components of the SCAT5: 4.8 ± 0.53 for orientation, 20.7 ± 4.0 for immediate memory, 3.8 ± 1.3 for concentration, 4.0 ± 4.2 for balance, 6.9 ± 1.9 for delayed recall, and 12.4 ± 3.0 for Standardized Assessment of Concussion. No sex differences were observed for concussion history or the number and severity of current symptoms. Females scored higher than males in the immediate memory (21.7 vs. 19.8, $p < 0.001$), orientation (4.9 vs. 4.8, $p = 0.047$), and delayed recall tasks (7.3 vs. 6.5, $p = 0.001$).

Conclusions Normative values for baseline SCAT5 performance are presented for a population of healthy Olympic athletes. This information can be considered by clinicians interpreting SCAT5 results in athletes who do not have a known baseline score.

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ABSTRACT WITHDRAWN

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HOW DO WE DO BETTER? MANAGING COMMUNITY RUGBY CONCUSSIONS IN A PRIMARY CARE SETTING

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Background Concussions in rugby are of a global player welfare concern. To address this challenge New Zealand Rugby has employed a social ecological model to develop a concussion management pathway (CMP). Following a suspected concussion, the pathway encourages compliance and supports the relevant stakeholders (e.g. players, coaches, physiotherapists, doctors) throughout the recovery process.

Objective To examine (i) user uptake of technology that operationalises the CMP and (ii) stakeholder experiences.

Design Prospective mixed-methods multi-centre study.

Setting Community rugby in three New Zealand provincial unions.

Patients (or Participants) Community rugby male and female players (n=1893) were invited to participate of which 1540 provided pre-season baseline data.

Interventions (or Assessment of Risk Factors) Pre-season, players were baseline tested using a modified SCAT5. In season, suspected concussions were logged on an App, notifying relevant stakeholders and entering the player into the CMP. Players were referred to a doctor who assessed them for a concussion while comparing to the player's baseline assessment via a customized online portal. This information was also used by the doctor at the time of medical clearance. To gain a deeper understanding of the participants' experience with the CMP, 130 stakeholders were interviewed post-season.

Results Two-hundred suspected concussions were logged, of these 154 saw a doctor for a diagnosis, 171 obtained medical clearance following completion of GRTP, and 17 were referred on for further investigation/treatment by a doctor involved in the pilot.

Stakeholders agreed that having a clearly defined pathway facilitated an efficient and informed management process for concussions and encouraged compliance with seeking medical advice/clearance.

Conclusions The CMP provides an electronic platform for monitoring compliance with medical visits and the safe RTP while ensuring all stakeholders are aware of the player's status. The system provides controlled access to centrally stored baseline information to help inform medical decisions. Stakeholders supported the use of the CMP.

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PRELIMINARY EXPLORATION OF BASELINE CONCUSSION MEASURES AMONG PREMIER LEAGUE FOOTBALL ATHLETES IN ZAMBIA

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Background Concussion is a global sport injury, however, in Africa this public health concern has yet to be studied. Currently, there are no concussion management programs implementing baseline or post-concussion measures among football clubs in the Football Association of Zambia (FAZ). Furthermore, it is unknown if tests such as the Immediate Post-Concussion Assessment and Cognitive Test (ImPACT) Quick Test (QT) would be culturally appropriate measures for implementation as part of a concussion screening protocol in Zambia or other African nations.

Objective To determine baseline neurocognitive percentile ranks among Zambian football athletes on the ImPACT QT.

Design Cohort study.

Setting Premier league football clubs based in Lusaka, Zambia.

Patients (or Participants) Male premier league football athletes from Zambia (n=119) aged 24.48 ± 5.41 .

Interventions (or Assessment of Risk Factors) The ImPACT QT (5–7min) neurocognitive assessment administered on an iOS/Apple iPad prior to a preseason team practice.

Main Outcome Measurements Outcome measures were average performance on 3 factor scores: Motor Speed, Memory, and