regarding JH, P, CT and RSI were recorded concurrently via the OptoJump system (Microgate, Bolzano, Italy). LESS trials were scored independently by the authors. Statistical analyses were used to confirm inter and intra-rater reliability. Data was tested for normality and one-way factorial MANOVA was used to assess between group differences ($p<0.05$). Ethical approval was granted by the University's Ethics Committee. Intra-class Correlation Coefficients (ICC) demonstrated excellent intra (0.96) and inter (0.94) rater reliability for the LESS in the current study. Six participants produced LESS scores deemed excellent to good (score ≥ 6), 26 participants produced scores deemed moderate to poor (score ≤ 5). Participants with moderate to poor LESS scores produced significantly greater P ($p=0.038$), RSI ($p=0.016$) and lower CT ($p=0.002$), there was no significant difference in JH ($p=0.842$) between participants scoring excellent to good and moderate to poor. The current study reports excellent intra and inter rater reliability for the LESS, supporting its use as a clinical assessment tool in an elite rugby union populations. The majority of players presented with moderate to poor LESS scores, therefore landing biomechanics may need to be improved in this population. Participants scoring moderate to poor in the LESS recorded significantly higher P, CT and RSI but not JH. This suggests participants with high risk landing biomechanics may also produce higher performance measures, but these do not result in improved outcome performance such as jump height.

7 SUNDAY STRATEGY AFFECTS MATCH DAY +2 SALIVARY CORTISOL AND SIGA RESPONSE FOLLOWING SATURDAY MATCHES THROUGH AN ENGLISH CHAMPIONSHIP FOOTBALL CLUB SEASON

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The measurement of salivary biomarkers has become popular in professional sport, in an attempt to monitor the stress responses associated with training, competition, and other related lifestyle factors. Using a 'Point of Care' platform, giving results within minutes of sample collection in the professional football environment, the aim is to provide coaching staff with 'readiness to train' data relating to individual players or the squad as a whole. At this club, after a Saturday match where there is no game until the following Saturday, players do not report to training until Monday Morning. However, if the next game is midweek, players are required to report to training on Sunday morning for recovery protocols. Salivary samples were collected for evaluation of sIgA and cortisol from 26 players (age 24.1±2.9 y, body mass 78.7 ±6.5 kg, stature 1.81±0.07) in a Championship football club squad at 09:00 on the Monday following a Saturday Match throughout the 2017–2018 season. In total 19 time-points were analysed; 11 where players reported in on a Sunday and 8 where players had the Sunday off from training post-match. All saliva samples were analysed at the training ground using Soma dual sIgA/Cortisol LFDs read with a Soma Cube LFD Reader to give rapid quantitative values for sIgA and cortisol. sIgA was seen to be variable, both within (CV 53.8%) and between players (CV 62.1%), as was the cortisol response (within CV 53.2% and between players CV 65.3%). Multi-Level regression analysis revealed a highly significant quadratic effect in sIgA due to 'weeks' throughout the season (the intercept at zero weeks was 187 µg/mL initially increasing at the early weeks, peaking mid-season then declining significantly towards the end of the season). Where players reported to training on Sunday, the Monday sIgA response was 60 µg/mL lower than when Sundays were spent at home. The Model for cortisol response showed a highly significant linear increase throughout the season. However, the impact of reporting for recovery training on Sunday had a significant impact on Monday cortisol, changing from 4.9 (0.8) nM when they did report in on Sunday to 9.6 (0.6) nM when they did not. Such biomarker responses may have important implications and practical applications for the planning of recovery strategies for subsequent professional football matches.

8 THE SALBUTAMOL PASSPORT: HOW TO RULE OUT AN ADVERSE ANALYTICAL FINDING FROM SERIAL URINE TESTS

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Salbutamol is used widely by elite athletes in treatment of asthma and related conditions, such as exercise-induced bronchoconstriction. In competitive sport, salbutamol is permitted by inhalation at doses up to 1600 µg/day, not to exceed 800 µg in any 12 hour period. WADA has established a urinary salbutamol Decision Limit for a presumed adverse analytical finding (AAF) of 1200 ng/mL. Urine salbutamol levels greater than this are deemed to be a result of prohibited use or excessive supratherapeutic inhalation. Studies have shown that under dehydrated conditions, exercise increases the risk of exceeding the Decision Limit after single inhaled doses of 1600 µg. One means of explaining an AAF is a Pharmacokinetic (PK) Study to establish whether an athlete is an outlier with higher urine concentrations than typical. However, a recent salbutamol case from the 2017 Vuelta a España, deemed it impractical and impossible to conduct a valid PK study capable of recreating the complex conditions of an athlete competing in such an event. Another means of explanation is the 'Salbutamol Passport'. This is a statistical model derived from serial test data obtained from an event during periods of stable salbutamol use. After adjustment for dose and dosing frequency, the Salbutamol Passport can be used to predict an expected concentration range for days when an athlete might increase their salbutamol intake due to worsening symptoms. Since the number of tests during stable use is typically small, the method uses propagation of uncertainty in mean and variance of the log-transformed salbutamol concentrations to derive expected bands for any dose and frequency of interest. The method is demonstrated with data from a cyclist competing in the 2007 Giro d'Italia. The athlete provided four salbutamol tests whilst taking 400 ug/day with geometric mean 461 ng/mL (95% CL: 352–604) and one test of