

Supplementary table 1 STROBE-SIIS (Sports Injury and Illness Surveillance) Statement 1.0—Checklist of items for the reporting of observational studies on injury and illness in sports

Item	Item No	STROBE-SIIS Recommendation	Page number
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	1
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	
		SIIS-1.1. Include information on the sport, athlete population (sex, age, geographic region) and level of competition.	
		SIIS-1.2. Include the duration of observation (e.g. one season, one year, multiple years).	
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	2
Objectives	3	State specific objectives, including any pre-specified hypotheses	
		SIIS-3.1. State whether study was registered. Identify the registration number and database used.	
		SIIS-3.2. State the specific purpose of your study	
Methods			
Study design	4	Present key elements of study design early in the paper	
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4
		SIIS-5.1. Describe the location, level of play, dates of observation and data collection methods (i.e. who, what, where).	
		SIIS-5.2. Specify the dates of the surveillance period and how the data were handled when the study covered more than one season/calendar year.	
		SIIS-5.3. Define whether the health problem data were collected prospectively or retrospectively.	
Participants	6	<i>Cross-sectional study</i> —Give the eligibility criteria, and the sources and methods of selection of participants	5
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6
		SIIS-7.1. Justify why you measured your primary and secondary outcomes of interest in the specific way chosen.	
		SIIS-7.2. Describe the method for identifying your health problem outcome of interest.	
Data sources/measurement	8	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	5-8
Bias	9	Describe any efforts to address potential sources of bias	7-8
Study Size	10	Explain how the study size was arrived at	N/A
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-8
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	8
		(b) Describe any methods used to examine subgroups and interactions	
		(c) Explain how missing data were addressed	
		(d) <i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy	
		(e) Describe any sensitivity analyses	
Participants	13	(a) Report numbers of individuals at each stage of study—e.g. numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	N/A
Descriptive data	14	(a) Give characteristics of study participants (e.g. demographic, clinical, social) and information on exposures and potential confounders	N/A
Outcome data	15	<i>Cross-sectional study</i> —Report numbers of outcome events or summary measures	1, 8
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g. 95% confidence interval). Make clear which confounders were adjusted for and why they were included	8-13

Discussion			
Key results	18	Summarise key results with reference to study objectives	
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	14-20
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	
Generalisability	21	Discuss the generalisability (external validity) of the study results	
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	20-21 N/A
Ethics	23	SIIS-23.1. Outline how individual athlete data privacy and confidentiality considerations were addressed, in line with the Declaration of Helsinki.	

Supplementary Table 2- Tackle descriptors and definitions

General operational variables	Description
Tackle event	an event where one or more tacklers attempt to stop or impede the ball-carrier whether or not the ball-carrier was brought to ground.
Missed tackle	The BC successfully penetrates the attempted tackle and continues to advance
Completed tackle	When a tackle break does not occur, and either player goes to ground or the ball-carrier is held up and cannot progress further. Player/s involved in the tackle seeking to regain possession of the ball from a ball carrier Player/s involved in the tackle in possession of the ball
Defender/Tackler	A player in possession of the ball
Attacker	
Ball-carrier	
CONTEXTUAL VARIABLES	
1. Previous phase or set piece	The phase or set piece preceding the tackle event. Ruck Lineout Scrum Restart
2. Pass number	The number of passes from the previous phase or set piece until the tackle event
3. Match period	1st quarter: 0-20 minutes 2nd quarter: 20-40 minutes 3rd quarter: 40-60 minutes 4th quarter: 60-80 minutes
4. Defensive direction	Direction of movement executed by the defensive line (5 seconds preceding the tackle event) a)
a) Lateral	Approaching the BC laterally
b) Backwards	b) Retreating from the BC
c) Forwards	c) Approaching the BC front-on
d) No direction	d) No identifiable movement direction (not moving lateral, backwards or forwards)
5. Number of defenders	1,2,3,4- how many defenders were involved in the tackle event?
6. Defender being coded	1,2,3,4 e.g. 1= primary tackler, 2=secondary tackler
7. Tackle sequence	The sequence of contact made by either by one or more tacklers (at and immediately after the initial point of contact)
a) One on one	a) One tackler contacts BC
b) Sequential	b) One tackler contacts BC, followed by a second defender joining the contact situation
c) Simultaneous	c) Two tacklers contact BC at the same time
d) Attacking sequential	d) Two attackers contact one tackler after each other
8. Positional grouping of the tackler	a) Backs: position numbers 9-15 b) Forwards: position numbers 1-8
9. Positional grouping of the ballcarrier	a) Backs: position numbers 9-15 b) Forwards: position numbers 1-8

10. Defending team status	a) defending team was winning at the time of the tackle event b) defending team was losing at the time of the tackle event c) defending and attacking teams were drawing at the time of the tackle event
a) Winning b) Losing c) Drawing	

PRECONTACT VARIABLES

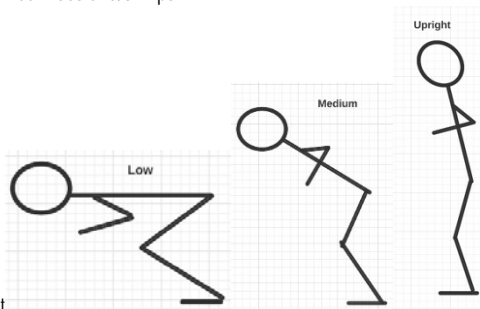
11. Distance of the BC from tackler at ball reception	Distance between the tackler and BC before the tackle (0.5 seconds preceding the tackle event) a) Less than 2m of the tackler b) Between 2-4m of the tackler c) Greater than 4m from the tackler
a) Near b) Moderate c) Distant	

12. Anticipation of BC	Evidence that tackler is attuned and aware of BC and impending contact (0.5 seconds preceding the tackle event) a) tackler was aware of impending contact b) tackler was unaware of impending contact
a) Apparent b) Absent	

13. Come to balance*	Does the tackler adjust body position and footwork to BC change of direction? (yes/no)
a) Apparent b) Absent	

14. Body position of BC	Position of the BC's upper body relative to their lower body i.e. degree of upper body flexion/extension (0.5 seconds preceding the tackle event) a) BC displayed high body height with knees and hips extended b) BC displayed moderate flexion at knees and hips c) BC displayed low body height
a) Upright b) Medium c) Low	

15. Body position of tackler	Position of the tacklers upper body relative to their lower body i.e. degree of upper body flexion/extension (0.5 seconds preceding the tackle event) a) tackler displayed high body height with knees and/or hips extended b) tackler displayed moderate flexion at knees and/or hips. c) tackler displayed low body height
a) Upright b) Medium c) Low	



16. Drop height*	Does the tackler stay big and drop height appropriately at the correct time? (yes/no)
a) Apparent b) Absent	

17. Dominant contact angle*	Does the tackler demonstrate a straight line posture through hips, spine, head up, chin off chest and eyes on target? (yes/no)	

18. Head position of tackler	Position of the tackler's head in relation to the position of the BC a) Gaze focused on BC b) Gaze away from BC c) Gaze towards the ground
a) Up and forward b) Away c) Down	

19. Arm position of tackler	Position of the tackler's arms before the tackle (0.5 seconds preceding the tackle event) a) Hands of the tackler are raised above their shoulders b) Hands of the tackler are dropped below the level of their elbows c) tackler's elbows are bent with at least one hand raised above the level of their elbow
a) Hands above shoulders b) Hands dropped c) Boxer stance/claws up elbows in*	

20. Foot placement close to BC* a) Apparent b) Absent	Does the tackler get their foot as close as possible to the BC? (foot placement in line with BC centre of mass e.g. point on ground directly below BC's hips) (yes/no)
21. Shoulders in front of hips*	Are the tacklers shoulders in front of hips in a loaded body position? (yes/no)
22. Speed of tackler a) Fast (maximal) b) Moderate (sub-maximal) c) Slow (static)	Estimation of the tackler's running speed (subjective assessment) (0.5 seconds preceding the tackle event) a) Running or sprinting (purposeful running with maximal effort, with high knee lift) b) Jogging (non-purposeful slow running with low knee lift) c) Stationary or walking (no visible knee lift no visible knee lift or rapid foot movement)
23. Speed of BC a) Fast (maximal) b) Moderate (sub-maximal) c) Slow (static)	Estimation of the BC's running speed (subjective assessment) (0.5 seconds preceding the tackle event) a) Running or sprinting (purposeful running with maximal effort, with high knee lift) b) Jogging (non-purposeful slow running with low knee lift) c) Stationary or walking (no visible knee lift or rapid foot movement)
24. Direction of movement of BC a) Straight b) Side Step	Movement of the BC before the tackle (0.5 seconds preceding the tackle event) a) BC ran straight at the defence b) BC performed an evasive step initiated by either leg
c) Arcing run d) Lateral run e) Diagonal run	c) BC performed arcing run d) BC performed a run from touchline to touchline e) BC runs at an angle, instead of straight at the tackler
25. Orientation of tackler in relation to BC* a) In-front b) Side c) Oblique d) Behind	Position of the tackler in relation to the BC (0.5 seconds preceding the tackle event) a) Tackler and BC moving head on toward each other b) Tackler moving in from the BC's side c) Tackler moving towards BC at an angle somewhere between the front-on and side-on positions. d) Tackler chasing BC toward own try-line

CONTACT VARIABLES

26. Body region of the tackler struck a) Lower leg b) Hip c) Upper leg d) Torso e) Shoulder f) Arm g) Head and neck	The initial anatomical location contacted on the tackler by the BC (at and immediately after the initial point of contact) a) Area below the knee b) On the shorts line (belly button to bottom of shorts) c) Area between bottom of shorts and knees d) Above the BC's belly button to the armpit e) Armpit to the shoulder f) Contact only to the arm initially g) Above the shoulder (contact with the head/neck)
27. Body region of the BC struck* a) Lower leg b) Hip c) Upper leg d) Torso e) Shoulder f) Arm g) Head and neck h) Ball	The initial anatomical location contacted on the BC by the tackler (at and immediately after the initial point of contact) a) Area below the knee b) On the shorts line (belly button to bottom of shorts) c) Area between bottom of shorts and knees d) Above the BC's belly button to the armpit e) Armpit to the shoulder f) Contact only to the arm initially g) Above the shoulder (contact with the head/neck) h) Contact to the ball initially
28. Type of tackle a) Arm tackle b) Jersey tackle c) Smother tackle d) Shoulder tackle e) Tap tackle	The type of tackle technique executed by the tackler (at and immediately after the initial point of contact) a) Tackler impedes BC with the upper limbs b) Tackler holds BC's jersey c) Tackler uses chest and wraps both arms around BC d) Tackler makes initial contact with their shoulder and wraps the BC with their arm e) Tackler trips BC with hand on lower limb below the knee
29. Direction of tackle a) Front-on b) Side-on c) Oblique d) Behind	The direction from where the tackler makes contact with the BC (at and immediately after the initial point of contact) a) Tackler makes initial contact head-on with BC b) Tackler makes initial contact with the BC's side c) Tackler makes initial contact with BC at an angle d) Tackler makes initial contact with BC from behind

30. Head placement of the tackler a) Above b) Beside c) In-front d) Behind	The position of the tackler's head in relation to the BC (at and immediately after the initial point of contact) a) Head higher than BC's body during contact b) Head next to BC's body during contact c) Head in front of BC's body during contact d) Head at the back of BC's body during contact
31. Ear to body *	Does the tackler's ear stay in contact with BC's body? (arrowhead- extra clamp with head) yes/no
32. Arm wrap and clamp* a) No attempt to wrap b) Wrap c) Failed wrap	Does the tackler use arms to wrap and clamp the BC? a) Tackler makes no attempt to wrap BC b) Tackler wraps BC c) Tackler attempts to wrap BC but loses grip
33. BC fend a) Absent b) Moderate c) Strong	Arm movement of the BC to repel the efforts of the tackler(s) (at and immediately after the initial point of contact) a) BC provided no fend b) BC provided a light to moderate fend (e.g. swat or slap technique) c) BC provided strong fend (e.g. push technique)
34. Tackler shoulder usage a) Shoulder usage b) No shoulder usage	Use of a shoulder by the tackler after initial contact (0.5 seconds after the tackle event) a) Tackler uses shoulder during or after initial contact is made b) No shoulder usage from tackler after initial contact is made
35. Shoulder usage active or passive or N/A?*	If shoulder was used, was it active or passive Active: first contact with the tacklers shoulder, and the tackler drives or attempts to drive the BC backwards Passive: first contact with the tacklers shoulder, and no attempt to drive the BC backwards N/A
36. Roll over front foot*	Does the tackler weight shift to the front foot? (yes/no)
37. Studs in the grass*	Are the tacklers studs in the grass, no dragging toes? (yes/no)

POSTCONTACT VARIABLES

38. Tackler leg drive* a) Absent b) Moderate c) Strong	Leg drive executed by the tackler after initial contact (0.5 seconds after the tackle event) a) No leg drive b) Moderate knee movement, with no high lift c) High, rapid knee lift
39. BC leg drive a) Absent b) Moderate c) Strong	Leg drive executed by the BC after initial contact (0.5 seconds after the tackle event) a) No leg drive b) Moderate knee movement, with no high lift c) High, rapid knee lift
40. Post tackle effort* a) Bounce b) Jackal/poach c) Barge/disrupt attempt d) Disrupt success e) LOG f) Tackler trapped	First effort made by the tackler (0.5 seconds after the tackle event) a) Bounce: When the tackler gets up from the ground and returns to the defensive line before the ball is played from the ruck. b) Jackal/Poach: Tackler picks the ball up from a tackled player while remaining on feet, from arriving on the correct side of the tackle, all before the ruck is formed. c) Barge/Disrupt attempt: Tackler gets up from ground and tries to disrupt attacking ruck- no change to ruck ball. d) Disrupt success: Tackler gets up from ground and tries to disrupt attacking ruck- ruck ball is slowed. e) LOG: Tackler lying on the ground when attacking team plays ball f) Trapped: Tackler is too slow to roll away, cannot escape ruck – may concede penalty for not rolling away
41. Finish on top/dominance* a) Tackler dominance b) BC dominance	Who dominated the contact: a) Tackler finishes on top of BC b) BC finishes on top of tackler

PERFORMANCE OUTCOMES

42. Which player achieves contact territorial/gainline dominance? a) BC b) Tackler c) No change	The direction of progression the tackler and ball-carrier made (as a single unit) towards the opposition try-line from the previous ruck to the point where both players went to ground (completed tackle) or when a maul is formed. a) Tackle finishes closer to defensive try-line b) Tackle finishes closer to attacking try-line c) Tackle finishes in same place as previous ruck
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43. Tackle result	Overall outcome after the tackle (5 seconds post the tackle event)
a) Offload	a) Offload: ball-carrier is able to pass the ball to a teammate during the tackle.
b) Tackle break	b) Tackle break: the BC successfully penetrates the attempted tackle and continues to advance.
c) Ruck formed	c) Ruck formed: a phase of play whereby one or more players from each team, who are on their feet, in physical contact, close around the ball on the ground.
d) Turnover won	d) Turnover won: the attacking team is unable to advance through an offload or tackle break, or form a ruck, and lose the ball either through an infringement or error. e) Tackler concedes penalty.
e) Tackler penalty conceded (pen -)	
f) BC penalty conceded (pen +)	f) BC concedes penalty.
g) Other (try scored)	g) BC scores try.

*- relevant to TackleReady performance criteria (World Rugby, 2022). LOG- lying on ground, BC- ball-carrier, pen- penalty against defending team, pen+ penalty against attacking team.

Supplementary table 3 Descriptive summary of tackle events across 15 matches of the six nations championship. Values are numbers, percentages, mean per match and 95% confidence intervals.

	Total tackles across championship		Mean per match (95%CI)
	n	%	
Completed tackles	4239	89%	282.6 (194.3-370.9)
Missed tackles	537	11%	35.8 (15.1-56.5)
Attempted tackles	4776	100	318.4 (220.8-416.02)

N=15 matches in total. CI confidence intervals.

Supplementary table 4 Ball-carrier characteristics demonstrated per match for missed tackles versus effective tackles (includes % occurrence, Rate Ratios (RR) with 95% Confidence Intervals (95% CI), Bonferroni-corrected p-values, Phi and Cramer's V and interpretations).

Technical variables	Effective tackles (n=619)	Less effective tackles (n=711)	Missed tackles (n=170)	RR missed versus effective (95% CI)	RR missed versus less effective (95% CI)	RR less effective versus effective (95% CI)	Phi and Cramer's V	Interpretation
Pre-contact variables								
BC body position								
Upright (n=862)	302 (35%)	438 (51%)	122 (14%)	1.47* (1.18-1.82) p=0.00	1.16 (0.95-1.43) p=0.14	1.25*(1.09-1.47) p=0.00	0.16	small
Medium (n=562)	279 (50%)	235 (41%)	48 (9%)	0.63* (0.45-0.85) p=0.00	0.85 (0.61-1.17) p=0.32	0.73*(0.61-0.88) p=0.00	0.16	small
Low (n=76)	38 (50%)	38 (50%)	0	-	-	0.87 (0.54-1.40) p=0.55	0.16	small
Speed of BC								
Static (n=157)	100 (64%)	50 (32%)	7 (4%)	0.25* (0.10-0.54) p=0.00	0.59 (0.22-1.30) p=0.18	0.44*(0.30-0.62) p=0.00	0.22	small

Low (n=498)	273 (55%)	204 (41%)	21 (4%)	0.28* (0.17-0.44) $p=0.00$	0.43* (0.26-0.68) $p=0.00$	0.65* (0.54-0.78) $p=0.00$	0.22	small
High (n=845)	246 (29%)	457 (54%)	142 (17%)	2.10* (1.70-2.59) $p=0.00$	1.30 (1.07-1.57) $p=0.01$	1.62* (1.38-1.90) $p=0.00$	0.22	small
BC direction of movement								
Straight (n=486)	209 (43%)	245 (50%)	32 (7%)	0.56* (0.37-0.81) $p=0.00$	0.55* (0.37-0.79) $p=0.00$	1.02 (0.85-1.23) $p=0.83$	0.11	small
Lateral (n=66)	28 (42%)	28 (42%)	10 (16%)	1.30 (0.56-2.76) $p=0.47$	1.49 (0.65-3.17) $p=0.28$	0.87 (0.50-1.53) $p=0.61$	0.11	small
Side step (n=452)	178 (39%)	192 (42%)	82 (19%)	1.68* (1.28-2.19) $p=0.00$	1.79* (1.36-2.32) $p=0.00$	0.94 (0.76-1.16) $p=0.55$	0.11	small
Diagonal (n=338)	146 (43%)	164 (49%)	28 (8%)	0.70 (0.45-1.05) $p=0.07$	0.71 (0.46-1.07) $p=0.09$	0.98 (0.78-1.23) $p=0.84$	0.11	small
Arc (n=158)	58 (37%)	82 (52%)	18 (11%)	1.13 (0.63-1.95) $p=0.64$	0.92 (0.52-1.54) $p=0.76$	1.23 (0.87-1.75) $p=0.23$	0.11	small
Contact variables								
BC fend								
Absent fend (n=717)	331 (46%)	338 (47%)	48 (7%)	0.54* (0.38-0.72) $p=0.00$	0.59* (0.43-0.81) $p=0.00$	0.89 (0.76-1.04) $p=0.13$	0.15	small
Fend (n=783)	288 (36%)	373 (48%)	122 (16%)	1.54* (1.24-1.91) $p=0.00$	1.37 (1.11-1.68) $p=0.00$	1.13 (0.96-1.32) $p=0.13$	0.15	small
Post-contact variables								
BC leg drive								
Absent leg drive (n=361)	226 (63%)	134 (37%)	1 (0.3%)	0.02* (0.00-0.09) $p=0.00$	0.03* (0.00-0.18) $p=0.00$	0.52* (0.41-0.64) $p=0.00$	0.28	small
Leg drive (n=1139)	393 (35%)	577 (50%)	169 (15%)	1.57* (1.30-1.88) $p=0.00$	1.22 (1.03-1.46) $p=0.02$	1.28* (1.12-1.46) $p=0.00$	0.28	small

Statistically significant Bonferroni-corrected p values in bold with asterisk ($p < 0.00333$). RR rate ratio, BC ball-carrier, CI confidence intervals. Results are reported to 2 decimal places.

Supplementary table 5 Tackle Ready tackler characteristics demonstrated per match for effective tackles versus missed tackles (includes % occurrence, Rate Ratios (RR) with 95% Confidence Intervals (95% CI), Bonferroni-corrected p-values, Phi and Cramer's V and interpretation.

Tackle Ready recommended technique	Effective tackles (n=619)	Less effective tackles (n=711)	Missed tackles (n=170)	RR effective versus missed (95% CI)	RR effective versus less effective (95% CI)	RR less effective versus missed (95% CI)	Phi and Cramer's V ^a	Interpretation
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Pre-contact variables								
Anticipation of BC (n=1468)	597 (41%)	701 (48%)	170 (12%)	0.96 (0.81-1.15) p=0.67	0.98 (0.88-1.09) p=0.69	0.99 (0.83-1.17) p=0.86	<0.1	trivial
Come to balance (n=919)	475 (52%)	435 (47%)	9 (1%)	14.5*(7.57-31.9) p=0.00	1.25*(1.10-1.43) p=0.00	11.6*(6.03-25.4) p=0.00	0.44	moderate
Bent at waist (n=1053)	457 (43%)	473 (45%)	123 (12%)	1.02 (0.83-1.26) p=0.85	1.11 (0.97-1.26) p=0.11	0.92 (0.75-1.13) p=0.41	<0.1	trivial
Drop in height (n=726)	327 (45%)	328 (45%)	71 (10%)	1.26 (0.98-1.66) p=0.07	1.15 (0.98-1.34) p=0.08	1.10 (0.85-1.45) p=0.45	<0.1	trivial
Dominant contact angle (n=316)	156 (49%)	136 (43%)	24 (8%)	1.79 (1.16-2.87) p=0.01	1.32 (1.04-1.67) p=0.00	1.35 (0.87-2.19) p=0.16	<0.1	trivial
Head up and forward (n=745)	329 (44%)	359 (48%)	57 (8%)	1.59*(1.19-2.14) p=0.00	1.05 (0.90-1.23) p=0.50	1.51*(1.14-2.03) p=0.00	0.12	small
Boxer stance (n=329)	151 (46%)	153 (47%)	25 (7%)	1.66 (1.08-2.64) p=0.01	1.13 (0.90-1.43) p=0.27	1.46 (0.95-2.33) p=0.07	<0.1	trivial
Close foot placement (n=316)	142 (45%)	154 (49%)	20 (6%)	1.95 (1.22-3.29) p=0.01	1.06 (0.84-1.34) p=0.62	1.84 (1.15-3.10) p=0.01	<0.1	trivial
Shoulders in front of hips (n=893)	395 (44%)	397 (44%)	101 (11%)	1.07 (0.86-1.35) p=0.53	1.14 (0.99-1.32) p=0.06	0.94 (0.75-1.18) p=0.57	<0.1	trivial
Tackler front/oblique to BC (n=814)	372 (46%)	367 (45%)	75 (9%)	1.36 (1.06-1.77) p=0.01	1.16 (1.01-1.35) p=0.04	1.17 (0.91-1.52) p=0.21	0.11	small
Contact variables								
Tackler point of contact- shoulder (n=536)	259 (48%)	256 (48%)	21 (4%)	3.39*(2.17-5.57) p=0.00	1.16 (0.97-1.39) p=0.09	2.91*(1.87-4.79) p=0.00	0.2	small
Point of contact on BC BC Torso level 3 (n=570)	236 (41%)	289 (51%)	45 (8%)	1.44 (1.04-2.03) p=0.02	0.94 (0.79-1.12) p=0.47	1.54 (1.12-2.15) p=0.01	0.11	small
BC Hip level 2 (n=388)	147 (38%)	189 (49%)	52 (13%)	0.78 (0.56-1.09) p=0.12	0.89 (0.72-1.11) p=0.31	1.54 (1.12-2.15) p=0.37	0.11	small
BC Leg level 1 (n=147)	60 (41%)	53 (36%)	34 (23%)	0.48*(0.31-0.76) p=0.00	1.30 (0.88-1.92) p=0.16	0.87 (0.64-1.21) p=0.00	0.11	small
Direction of tackle- Front/Oblique (n=509)	245 (48%)	226 (44%)	38 (7%)	1.40 (1.03-1.95) p=0.01	1.25 (1.04-1.50) p=0.02	0.37 (0.24-0.59) p=0.04	0.12	trivial
Correct head placement (n=1269)	533 (42%)	605 (48%)	131 (10%)	1.12 (0.92-1.36) p=0.25	1.01 (0.90-1.14) p=0.84	1.42 (1.01-2.06) p=0.30	<0.1	trivial
Ear to body (n=462)	228 (49%)	231 (50%)	3 (0.6%)	20.9*(7.05-102) p=0.00	1.13 (0.94-1.37) p=0.18	1.10 (0.91-1.34) p=0.00	0.23	small
Wrap and clamp (n=1039)	511 (49%)	525 (51%)	3 (0.3%)	46.8*(15.9-228) p=0.00	1.12 (0.99-1.27) p=0.07	18.4*(6.22-90) p=0.00	0.53	moderate
Active shoulder usage (n=236)	135 (57%)	100 (42%)	2 (0.8%)	18.5*(5.03-155) p=0.00	1.55 (1.89-2.03) p=0.00	12.0*(3.22-100) p=0.00	0.15	small
Tackler roll over front foot (n=659)	296 (45%)	286 (43%)	77 (12%)	1.06 (0.82-1.37) p=0.68	1.19 (1.01-1.40) p=0.04	0.89 (0.69-1.16) p=0.35	0.11	small
Studs in grass (n=858)	387 (45%)	394 (46%)	77 (9%)	1.38 (1.08-1.79) p=0.01	1.13 (0.98-1.30) p=0.09	1.22 (0.96-1.58) p=0.10	<0.1	trivial

Post-contact variables

Strong tackler leg drive (n=435)	251 (58%)	176 (40%)	8 (2%)	8.62*(4.31-20.2) p=0.00	1.64*(1.35-2.0) p=0.00	5.26*(2.61-12.4) p=0.00	0.25	small
Tackler release and counter (n=694/1151)	367 (53%)	327 (47%)	-	-	1.29 (1.11-1.50) p=0.00	-	<0.1	trivial
Tackler dominance (n=334)	225 (67%)	109 (33%)	-	-	2.37*(1.88-3.01) p=0.00	-	0.3	small

Statistically significant Bonferroni-corrected p values in bold with asterisk ($p < 0.000694$). RR rate ratio, BC ball-carrier, CI confidence intervals, ^aN.B. for effective versus missed. Results are reported to 2 decimal places.