Reducing risk in rugby – A Multi-disciplinary approach
Injury vs. Performance

$r = -0.56$
90% CI: -0.80 to -0.16
Likely negative

Williams et al., BJSM, 2015
Contact injury model for rugby. Based on Bittencourt et al., BJSM, 2016
Injuries are complex and multi-factorial

Changing ONE thing is unlikely to change the WHOLE system
Use every tool in the box!!!
Modifiable vs. non-modifiable risks

Windt and Gabbett, BJSM, 2016
Multi-disciplinary approach to managing team injury risk

Medical team
Doctor + Physiotherapist
Diagnosing, treating and developing injury management plans
- Injury Diagnosis
- Treatment/therapy
- Rehabilitation

Sport Scientist
Optimising performance through interpretation of physical performance data
- Sport nutrition
- Sport psychology

Technical / Tactical coaches
Provide overall performance model
- Technical coaching
- Tactical training
- Skills
- Game plan

S&C coach
Prescription of training for physical performance and injury prevention.
- Aerobic / Anaerobic conditioning
- Strength/Power training
- Speed training

Athlete load
(What the player does, and how he/she does it)
What does a multi-disciplinary approach look like?

Injury audit (Epidemiology) → Risk Assessment (Estimation and Evaluation) → Mitigation strategies

- Strength training
- Therapeutic interventions
- Technical coaching
- Psychophysiologcal monitoring
- Screening
- Training load monitoring
- Fitness training
- Rehabilitation strategies
- Return to play
Screening

Dysfunctional movement pattern

Poor tackle technique

@JasonCTee #FitCon2016
Fig. 1. Standard Kaplan–Meier survival curves for completing matches free of contact injury for 66 professional rugby league players. Four significant (or almost significant) risk factors are shown: (a) high body mass, (b) fast speed (40m sprint), (c) poor upper-body strength (chin-up), and (d) poor prolonged high-intensity running ability. All curves are adjusted for players’ age, playing experience and usual playing position.
Correct training prescription

Tee, unpublished observations
Coaching contact technique frequently
Improved monitoring and recovery
Effectiveness of the multi-disciplinary approach
Reduced injuries